LAW AND CONTEMPORARY PROBLEMS

AIR CARGO

(TABLE OF CONTENTS ON INSIDE COVER)

SCHOOL OF LAW • DUKE UNIVERSITY

Vol. 15 WINTER, 1950 No. 1

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FOREWORD

Air Cargo is a phrase to kindle one's imagination—so much so that it is difficult not to be swept away by the brilliant prospects envisioned by so many for this industry. Although air express operated for several years prior to World War II, and, during the same period, there had been sporadic but short-lived attempts at other carriage of freight by air, it was primarily such dramatic military operations as those of the Air Transport Command in "flying the hump" and accomplishing successfully other movements of essential freight quickly by air over tremendous distances and obstacles, that provided the necessary stimulus for the birth and development of air cargo. The end of the war made available vast quantities of surplus aviation equipment, convertible to cargo operations, and also released a large number of men highly trained in the techniques of air freight transport and eager to explore its future possibilities.

Since the war, growth has been rapid, though not perhaps as swift as some early enthusiastic forecasts predicted. This growth has also revealed the complex nature of the problems facing the newborn air cargo industry. These problems, which the articles in this symposium illustrate, range widely: The relation, and differences, if any, between air cargo and air express; the uncertainties presently existing concerning air cargo insurance and carrier liability for losses; the place of the forwarder; the establishment of rates that will be high enough to make the carriers self-sustaining and yet low enough to attract a sufficient volume of traffic for the most economical operations; and, finally, the extent to which, as well as the manner in which, competition and newcomers should be encouraged or limited in this industry.

It is not surprising that solutions to all the above questions have not yet been found. Indeed, it may be doubted if wise answers can now be given to all of them, when many essential statistics and other facts appear to be fragmentary or lacking, and while the well-established regular passenger-mail-express-freight carriers, receiving government mail pay, have such different viewpoints from the air cargo carriers who receive no mail pay.

Congress has, of course, attempted to provide for the over-all development and regulation of civil aeronautics, notably through the Civil Aeronautics Act and the Civil Aeronautics Board. To what extent Congress has muddled rather than clari-

fied matters is, to say the least, debatable. As Mr. Carter points out, the standards of the Act often appear inconsistent, if not unworkable. Within this framework provided by Congress, the CAB[1] has been and is struggling to work out many of the issues discussed in this symposium.

Finally, the international picture, which in turn decisively affects our national defense policies, may, through such episodes as the Berlin Airlift, well prove to be a crucial factor in the immediate development of air cargo.

ROBERT KRAMER.

[1] Various members of the CAB as well as of its staff were invited to contribute to this symposium an expression of their viewpoints on the problems of air cargo. To the editor's regret, none (except Mr. Feldstein) accepted these invitations.

POSITION OF THE CERTIFICATED AIR CARRIERS IN CIVIL AERONAUTICS BOARD FREIGHT PROCEEDINGS

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The nation's scheduled air transportation system is a public utility regulated by the Civil Aeronautics Board under the Civil Aeronautics Act of 1938, as amended.[1] It is composed of sixteen so-called trunkline air carriers and a number of so-called feederline air carriers. Each of these holds one or more certificates of public convenience and necessity, issued by the Civil Aeronautics Board, authorizing the scheduled common carriage of passengers, mail, and property[2] (which includes air freight and air express[3]).

There have been three proceedings recently before the Civil Aeronautics Board involving air freight. In two of these—the combined *Air Freight* case and *Boston-New York-Atlanta-New Orleans* case, and the *Air Freight Forwarder* case—the question of the need for additional air freight carriers was raised. In the former case fourteen applicants sought certificates of public convenience and necessity authorizing the direct carriage of air freight. The *Air Freight Forwarder* case involved 105 applications by 78 different applicants to engage indirectly in air transportation as air freight forwarders[4] or in the carriage of air express by utilizing the

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[1] 52 STAT. 977 (1938), as amended, 60 STAT. 1352, 49 U. S. C. §§401-680 (1946).

[2] Two carriers are authorized to carry property and mail only, via helicopter in the vicinity of Los Angeles and of Chicago.

[3] In its decision in the combined *Air Freight* case, Docket 810, *et al.*, and *Boston-New York-Atlanta-New Orleans* case, Docket 730 *et al.*, decided July 29, 1949, the Board stated (p. 6 of mimeographed opinion):

"Accordingly, we hold as a matter of law, that any carrier authorized by its certificate to carry property is thereby authorized to carry any kind of property including baggage, express, and freight." The Board explained the difference between air freight and air express in its decision in the *Air Freight Forwarder* case, Docket 681 *et al.*, decided September 8, 1948, as follows (p. 16 of mimeographed opinion):

"The difference between air express and air freight lies principally in the ground and accessorial services provided and in the amount of the rates charged shippers for the respective services. Air freight is carried at rates usually less than half those assessed against air express."

[4] The Civil Aeronautics Board defines air freight forwarders in terms of the same characteristics by which the Interstate Commerce Commission identifies surface forwarders (*Air Freight Forwarder* case, *supra*, note 3, p. 35 of mimeographed opinion).

Part IV of the Interstate Commerce Act defines freight forwarders as follows:

"The term 'freight forwarder' means any person which (otherwise than as a carrier subject to Chapters 1, 8, or 12 of this title) holds itself out to the general public to transport or provide transportation of property, or any class or classes of property, for compensation, in interstate commerce, and which in the ordinary and usual course of its undertaking, (A) assembles and consolidates or provides for assembling and consolidating shipments of such property, and performs or provides for the performance of break-bulk and distributing operations with respect to such consolidated shipments, and

aircraft operated by direct air carriers. The Board's decision in the *Air Freight-Boston-New York-Atlanta-New Orleans* case granted certificates of public convenience and necessity authorizing the air transportation of property only (not including air express) to four of the applicants, Slick Airways, Inc., the Flying Tiger Line, Inc., U. S. Airlines, Inc., and Airnews, Inc.; the decision and order in the *Air Freight Forwarder* case established a regulation (known as Section 292.6 of the Board's Economic Regulations) exempting air freight forwarders from the certificate provisions of the Act and providing that letters of registration under that regulation be issued to certain applicants.[5]

A third proceeding, the *Air Freight Rate* case, Docket 1705 *et al.*, decided June 2, 1948, involved the air freight rates to be charged by the direct carriers. The Board's decision in that case set the minimum rates which might be charged, but specifically permitted the carriers to file petitions for reconsideration seeking adjustments in such minimum rates. Two further proceedings have grown out of petitions for reconsideration so filed, one involving less-than-minimum directional commodity rates and the other involving rules of certain carriers providing for accumulation, assembly, and distribution services.

The cargo services of the certificated[6] carriers are the result of years of experimentation and effort. Those services and the "know how" back of them are invaluable national assets. These carriers have, therefore, in each of the air freight proceedings mentioned above, constantly sought to impress upon the Board the vital necessity of an economically sound national air cargo system capable of providing for the public the maximum amount of air cargo service at the lowest possible rates. The relationship of this over-all position to each of the air freight proceedings mentioned above will be set out below.

I

THE AIR FREIGHT CASE[7]

As indicated above, this proceeding involved the requests of some fourteen applicants for authority to carry air freight only. The certificated carriers opposed the granting of these applications because:

(B) assumes responsibility for the transportation of such property from point of receipt to point of destination, and (C) utilizes, for the whole or any part of the transportation of such shipments, the services of a carrier or carriers subject to Chapters 1, 8, or 12 of this title." 56 STAT. 284 (1942), 49 U. S. C. §1002 (1946).

[5] Both of these cases are now on appeal. The *Air Freight-Boston-New York-Atlanta-New Orleans* case is on appeal in the Court of Appeals for the District of Columbia (the appeal of American Airlines, Inc., is docketed as case No. 10374, that of Transcontinental and Western Air, Inc., as case No. 10387, and that of Eastern Air Lines, Inc., as case No. 10388). The *Air Freight Forwarder* case is on appeal in the Court of Appeals for the Seventh Circuit, case No. 9739.

[6] As used in this article the term "certificated carriers" will not include the applicants who received certificates or letters of registration as the result of the Board's decision in the *Air Freight-Boston-New York-Atlanta-New Orleans* case and the *Air Freight Forwarder* case.

[7] This term will hereinafter be used to designate the combined *Air Freight* and *Boston-New York-Atlanta-New Orleans* case, *supra* note 3.

(1) The air freight services of the certificated carriers are adequate to meet the public need;

(2) The diversion from the certificated carriers of their cargo traffic would cause them serious injury;

(3) The applicants could not meet the statutory standards of fitness, willingness, and ability;[8] and

(4) As a consequence of the above an economically unsound air cargo transportation system would be created through certification of the applicants.

The certificated carriers conceived and initiated the development of the air cargo business. During the late nineteen twenties and nineteen thirties most of the cargo transported by the airlines was air express. There were several efforts to establish air express service independent of the Railway Express Agency,[9] but in 1935 all the airlines except Transcontinental and Western Air signed agreements with the Railway Express Agency,[10] providing that the latter should handle air express on the ground. The rapid growth of air express from that time is indicated by the following table showing the yearly ton-miles of air express carried by all of the certificated airlines from 1935 through 1948:[11]

YEARLY TON-MILES OF AIR EXPRESS

1935	1,089,802	1942	11,691,208
1936	1,860,807	1943	15,117,925
1937	2,156,070	1944	17,488,432
1938	2,173,706	1945	20,845,292
1939	2,705,614	1946	23,786,579
1940	3,469,485	1947	28,533,362
1941	5,242,529	1948	29,768,883

As indicated by the Civil Aeronautics Board's definition,[12] air express is just one form of air cargo. The entire history of air transportation has been one of progressively converting to air carriage traffic which formerly had moved only by surface transportation. Air cargo transportation is no exception to the rule. In the early development of air cargo transportation only cargo urgently needed at destination moved by air. This cargo was ideally suited to air express carriage which received expedited handling both in the air and on the ground. However, as air service is daily becoming a more accepted mode of passenger transportation for

[8] Section 401(d)(1) of the Civil Aeronautics Act provides:

"The Board shall issue a certificate authorizing the whole or any part of the transportation covered by the application, if it finds that the applicant is fit, willing, and able to perform such transportation properly, and to conform to the provisions of this Chapter and the rules, regulations, and requirements of the Board hereunder, and that such transportation is required by the public convenience and necessity; otherwise such application shall be denied." 52 STAT. 987 (1938), 49 U. S. C. §481(d)(1) (1946).

[9] See JOHN H. FREDERICK, COMMERCIAL AIR TRANSPORTATION, c. 21 (1946).

[10] Transcontinental and Western Air signed up with the Railway Express Agency on September 1, 1937.

[11] FREDERICK, *op. cit. supra* note 9, at 531; Form 2780 and Form 41 Reports submitted by airlines to Civil Aeronautics Board.

[12] See note 3, *supra*.

people who have never flown before, so it is becoming the accepted mode of transportation for an ever wider variety of cargo.

The greatest stimulus to the mass use of air cargo transportation came from World War II. Out of the unrelenting need for fast and reliable transportation in support of the national war effort grew new techniques and greater familiarity with the immense possibilities of air cargo transportation. Probably the most important contribution of the war to the civil air cargo industry, however, was the greatly increased public acceptance of this war-glorified transportation medium because of the large amount of publicity which it daily received.

Unfortunately, the certificated airlines were in no position to capitalize on these new developments immediately after the war. Under military necessity they had patriotically surrendered a large part of their equipment, in some cases more than half of the entire fleet of an individual carrier, to the armed forces. Air carrier contracts for the purchase of new equipment had been assigned *in toto* to the Government. The remaining equipment was insufficient to handle even priority traffic (priority air cargo as well as priority passengers). Low priorities were "bumped" by high priorities and high priorities by higher. Even the return of some flying equipment to the certificated air carriers during the closing days of the war did not enable them to catch up with the flood of emergency traffic.

Despite the lack of equipment with which to handle the traffic, the certificated air carriers sought to prepare as soundly as possible for the expected great future growth of air cargo transportation. Air Cargo, Inc., was set up by four of the major airlines[13] for the purpose of providing the research foundation necessary to the later expansion of air cargo facilities.[14] Some carriers were operating schedules primarily for the carriage of cargo as early as 1942.[15] Within a year and a half following the close of the war all but one of the certificated trunkline carriers had filed tariffs covering the general transportation of air cargo, some of these being filed as early as 1944.[16]

Today the certificated carriers operate a comprehensive air cargo transportation system. Nine of the sixteen trunkline carriers operate all-cargo equipment in addition to combination equipment also carrying passengers and mail.[17] All of the certificated carriers, both trunkline and feeder, carry air cargo, including, of course, air freight, on equipment which also carries passengers and mail.[18] Concerning the present pattern of air freight service provided by the certificated carriers the Civil Aeronautics Board stated:[19]

[13] American Airlines, Inc., Eastern Air Lines, Inc., Transcontinental and Western Air, Inc., and United Air Lines, Inc. Other certificated air carriers later joined in this organization.

[14] FREDERICK, *op. cit. supra* note 9, at 565-573.

[15] Testimony of Paul H. Brattain, First Vice-President of Eastern Air Lines, Inc., in *Air Freight* case, *supra* note 3.

[16] Brief of Air Transport Association of America to Examiner dated April 14, 1947, p. 35, in *Air Freight* case, *supra* note 3.

[17] *Air Freight* case, *supra* note 3, p. 25 of mimeographed opinion.

[18] *Id.* at 17.

[19] *Id.* at 25-26.

Among the certificated carriers who operate all-cargo planes a logical pattern of service is emerging which provides for regular schedules of all-cargo aircraft to major route points only. The normal volume traffic demands of lesser intermediate points are met by utilization of combination aircraft. Where occasional traffic at these points exceeds the capacity of the combination schedules, then an effort is made to accommodate the traffic by adding the point as a stop on an all-cargo flight. This pattern of service, expanded as required by traffic increases, is that which will be afforded by the multiple-service carriers in the foreseeable future and appears to be a sound and logical expansion from a passenger, mail, and express service.

The certificated carriers provide all-cargo service to every major cargo-generating center of the United States. The volume of cargo service they provide to every city is fully sufficient for its needs. Following is an analysis submitted to the Civil Aeronautics Board in the *Air Freight* case showing by quarters the amount of freight carried by the certificated carriers during the four-year period 1945-1948 and the volume of surplus capacity which could have been utilized for the carriage of cargo had such cargo been available.[20]

Year and Quarter	Air Freight Carried by Certificated Carriers (Ton-Miles)	Unused Cargo Capacity of Certificated Air Carriers (Ton-Miles)
1945 1st quarter	21,312,000	30,114,000
2nd quarter	23,505,000	31,870,000
3rd quarter	22,819,000	34,900,000
4th quarter	19,650,000	34,483,000
1946 1st quarter	15,114,000	34,519,000
2nd quarter	15,941,000	54,267,000
3rd quarter	16,067,000	69,143,000
4th quarter	24,830,000	75,129,000
1947 1st quarter	20,663,000	64,469,000
2nd quarter	21,686,000	68,936,000
3rd quarter	22,335,000	78,233,000
4th quarter	31,942,000	73,574,000
1948 1st quarter	29,266,000	66,062,000
2nd quarter	32,558,000	85,963,000
3rd quarter	33,490,000	100,292,000
4th quarter	42,401,000	99,341,000

In view of the completeness of the air cargo services of the certificated carriers, as indicated above, the consideration of the need for additional cargo-only carriers raises immediately two questions: (1) Is there sufficient cargo traffic economically to support additional cargo-only carriers; and (2) will such carriers provide the public any needed new service? It is the position of the certificated carriers that neither of these questions can be answered affirmatively.

Several of the applicants in the *Air Freight* case have been operating for over two years as scheduled common carriers of air freight under an extraordinary ex-

[20] Exceptions on Behalf of American Airlines, Inc., to the tentative Opinion of a Majority of the Board, dated May 19, 1949, Appendix II.

emption (Section 292.5 of the Board's Economic Regulations) from the certificate provisions of the Civil Aeronautics Act.[21] Data as to these operations were made of record at a reopened hearing of the *Air Freight* case in November and December of 1948. Each of the freight-only carriers which took advantage of the Board's exemption order incurred losses running into millions of dollars.[22] These losses cannot be blamed on uneconomical equipment for these carriers were operating all types of equipment (C-47's, C-46's, and C-54's). It is obvious that such enormous transportation operating losses would not have been incurred had there been available sufficient cargo traffic to support additional carriers economically.

The applicants premised their contention that there is sufficient cargo traffic to support additional cargo carriers upon various forecasts placed in the record of the *Air Freight* case before any operating experience under Section 292.5 of the Board's Regulations had been accumulated. The Board's analysis, in its *Air Freight* case opinion, of the nation's air freight potential similarly is grounded upon "paper" forecasts[23] and also upon an analysis of air freight rates as compared with surface transportation rates.[24] In the opinion of the certificated carriers, the actual operating results of the certificated carriers and the applicants are more to be trusted in assessing the national reservoir of air freight potential than the untested conjectural calculations of even the most competent experts.

Furthermore, even if there should be sufficient cargo traffic potential to support additional carriers, that fact would not necessarily mean that such additional carriers should be certificated. In the *Chicago-Milwaukee-New York* case the Board stated:[25]

> The mere fact that a particular route develops a large volume of traffic does not of itself afford sufficient justification for a finding that the public convenience and necessity require establishment of an additional competitive service exactly duplicating an existing operation.

The property-only carriers would not provide air cargo service for additional cities which are not now receiving such service. The record in the *Air Freight* case shows that they have concentrated their service at only a few relatively large cities. U. S. Airlines' reports to the Board show that practically all of its service is between New York and Atlanta, with occasional service to Miami. The reports of the Flying Tiger Line show that it has served regularly only the following cities: Chicago, Cleveland, Detroit, Kansas City, Los Angeles, New York, Philadelphia, San Francisco, and St. Louis. Similarly the reports of Slick Airways show regular service at the following cities only: Los Angeles, San Francisco, Chicago, Dallas,

[21] Section 295 (formerly 292.5) of the Economic Regulations of the Civil Aeronautics Board.

[22] Special Reports filed by non-certificated cargo carrier applicants on April 15, 1948, and Regular Reports filed by the same carriers pursuant to Section 242 (formerly 202.1) of the Board's Economic Regulations.

[23] *Air Freight* case, *supra* note 3, p. 12 of mimeographed opinion.

[24] *Id.* at 13-22.

[25] 6 CAB 217, 228 (1944).

Detroit, Houston, New York, Philadelphia, St. Louis, and San Antonio. Most of the above cities receive multiple all-cargo schedules from one or more of the certificated carriers.[26]

The property-only applicants at one time contended that they would provide cargo service for numerous small cities under a novel concept of common carriage which they labeled "area" or "demand point" service. This theory of service involved the furnishing of regularly scheduled service at a few large "principal" points and service at smaller cities or "demand" points only if a volume of traffic meeting large minimum tender requirements (usually 500 to 2,000 pounds) should be available. It should be mentioned again at this point that the property-only applicants have been operating for over two years as scheduled common carriers of air freight with much greater freedom from regulatory obligations and restrictions than if certificated, and in addition they undoubtedly have been striving to prove their case for certificates. Yet Slick Airways, for example, during the seventeen-month period August 1947 through December 1948 made only thirty-nine stops at "demand" points, and the Flying Tiger Line none. The certificated carriers, of course, have always provided cargo service at such smaller cities either through the use of the cargo space available on combination equipment, or through the use of all-cargo equipment where necessary.[27] The actions of the property-only carriers following certification reveal their determination not to provide service at the "smaller" cities. Thus, Slick has filed airport notices stating its intention to serve Wilmington, Delaware, a city of 112,000, through the Philadelphia airport, and Akron, Ohio, a city of 250,000, through the Cleveland airport. U. S. Airlines similarly proposes to serve Belle Glade, Florida, a city which the property-only applicants asserted has a substantial cargo potential, through the West Palm Beach airport which already receives cargo service by the certificated carriers.

In providing demand point service, the property-only carriers would rely on commission agents to perform their solicitation, cargo handling, etc.[28] The certificated carriers, from years of experience, know that such a set-up will not provide satisfactory service for the public and is not consistent with the high public responsibility attaching to common carriage.

The authorization of property-only carriers can lead only to more expensive air freight service for the public. A former chairman of the Board has stated:[29]

> I am quite certain that an adequate air operation transporting mail only would be more expensive and would require greater mail payments than does the present system of conducting air operations on a mail, passenger and property basis.

This ability of the certificated carriers to render a more economical air freight service

[26] Airline Traffic Guides.

[27] See note 19, *supra*.

[28] Report of Examiners William F. Cusick and R. Vernon Radcliffe, served March 12, 1948, p. 248, *Air Freight* case, *supra* note 3.

[29] Statement of James M. Landis to the subcommittee of the House Post Office and Civil Service Committee on December 12, 1947.

than property-only carriers, and consequently to give lower rates to the public, was recognized by the Examiners:[30]

Certainly the public convenience and necessity is best served by the operation that will give the needed service at the lowest cost consistent with reliability and safety. In many past cases involving the selection of a carrier for extension over a new route segment the Board has considered, among other things, the additional initial and operating expenses of the various applicants in maintaining such a service. Thus, an applicant who already had sales and operations personnel located in the points to be joined by a new routing could show less added expense in those categories than the carrier who would be required to set up facilities at those points. As between applications, the Board has considered that one might be able to serve the new route by increasing the utilization of equipment owned, whereas another would have to add new planes for the purpose. Such considerations, of course, imply something short of full utilization of personnel and equipment in a given operation, but do not detract from the practical force of the considerations. Without attempting to fix the traffic volume points at which additional station personnel become necessary, it has been recognized that additional units of traffic can generally be handled at less cost than similar initial traffic.

Because of their existing extensive organizations, the certificated airlines are in position to handle air cargo at much less additional cost than the applicants. The validity of this "share-the-cost" concept is not dependent upon having cargo move in the same planes as passengers and mail. Wherever a battery cart, or a wheel chock, or the president of the company, can be shared between the cargo service and the service required for other classes of traffic, the multiple service carrier necessarily is able to offer the public a cheaper and more economical service than the carrier whose single class of traffic must support all expenses. This saving can and will be passed on to the public in the form of reduced rates unless arbitrarily prevented by governmental action to protect less economical carriers.

The authorization of cargo-only carriers will cause a serious and wasteful diversion of needed traffic from the certificated carriers. The Examiners found:[31]

The total amount of competitive air service contemplated by the proposals in this proceeding appears to far surpass that of any case previously before the Board.

The President's Air Policy Commission stated:[32]

In regard to the first issue (spreading air cargo among more lines than now exist as common carriers) as we have said above, most common carrier air lines certificated for the carriage of passengers, property, and mail, after a steady progression toward self-sufficiency from 1938 to 1946 have suffered a serious set-back. Our major problem is to get them started once again up the ladder toward self-sufficiency. To advocate at this time the entry into this field of a large number of new carriers would certainly seem to postpone rather than hasten the attainment of such a state.

[30] Examiners' Report, *supra* note 28, at 243-244.

[31] *Id.* at 240.

[32] SURVIVAL IN THE AIR AGE, A REPORT BY THE PRESIDENT'S AIR POLICY COMMISSION 113-114 (January 1, 1948).

The certificated carriers certainly are not champions of monopoly. They recognize that the spectacular growth of the industry has been due in large measure to the ever-present stimulus of competition. But it is impossible to conceive of the present air transportation industry as resembling a monopoly in any degree. There are twenty-eight airlines now operating domestically, not counting the property-only carriers. Practically all major routings are served by two or more carriers. Each of these airlines provides air freight service to the extent of the public demand for such service. An industry consisting of twenty-eight air cargo carriers is a far cry from a monopoly.

If at some future time the air freight market develops to such proportions that it cannot adequately be handled by the existing carriers, the Board might very properly give consideration to the authorization of additional carriers. That time is not yet here. The size of the air freight market is problematical, and it would be an unwarranted gamble to authorize cargo-only carriers at this time.

The certificated carriers believe that the applicants in the *Air Freight* case are not qualified to undertake the extensive new services for which four of them have been authorized. The large operating losses of the applicants have already been noted.[33] U. S. Airlines, for example, has incurred total expenses of approximately 80 cents per ton-mile for every ton-mile of air freight carried by it[34] and yet it could not expect to charge the public more than 20 cents per ton-mile for the carriage of such freight. During only two and a half years of operations, U. S. Airlines exhausted about five-sixths of its entire original capitalization of over three million dollars, a total loss of $2,557,938.[35] Slick Airways during nearly two and three-quarters years of exempted operations exhausted about six-sevenths of its capitalization, a total loss of $1,931,242,[36] and the Flying Tiger Line, in three and a half years of operations, well over one-half of its capitalization, a total loss of approximately $1,350,000.[37] These facts are far from convincing that the all-cargo carriers are "fit, willing and able" successfully to operate the extensive systems for which they have been certificated. They have managed to keep going only through engaging in outside activities such as aircraft maintenance.[38] Ability to secure such outside revenues furnishes no proof as to fitness, willingness, and ability to conduct an air cargo transportation system.

On the basis of the above factors, and others which cannot be discussed because of space limitations, it has seemed clear to the certificated carriers that the applications in the *Air Freight* case ought to have been denied.

[33] See note 22, *supra*.
[34] U. S. Airlines' Special Reports and Section 202.1 Reports, note 22, *supra*.
[35] *Ibid*.
[36] Slick Airways' Special Reports and Section 202.1 Reports, note 22, *supra*.
[37] Flying Tiger Line's Special Reports and Section 202.1 Reports, note 22, *supra*.
[38] *Air Freight* case, *supra* note 3, p. 21 of mimeographed opinion.

II

THE AIR FREIGHT FORWARDER CASE

As indicated above, this proceeding involves numerous applications to engage indirectly in air transportation as freight forwarders.[39] In *Universal Air Freight Corporation—Investigation of Forwarding Activities*[40] and in *Railway Express Agency, Inc., Certificate of Public Convenience and Necessity*,[41] the Board held that one who engages in forwarding activities is an air carrier within the meaning of Section 1(2)[42] of the Civil Aeronautics Act. In the *Universal* case the application of Universal Air Freight Corporation for an exemption under Section 1(2) was denied, and, until the Board's decision of September 8, 1949, there were no legally operating common carrier air freight forwarders (other than the Railway Express Agency whose air express activities were approved by the Board in *Railway Express Agreements*).[43]

These applications in the *Air Freight Forwarder* case were opposed by the certificated carriers in line with their broad general policy of advocating the maintenance of the soundest possible air transportation system. There are two fundamental bases for this opposition: (1) because of the physical nature of air transportation, there is no public need for air freight forwarding as might be contended in relation to surface transportation agencies, and (2) the practice of forwarding is so fraught with opportunities for abuse that it should not be introduced into the air transportation industry without an impelling public need.

Freight forwarding had its origin in certain deficiencies inherent in the transportation of freight by railroad. The only carrying unit in railroad freight transportation is the boxcar with capacities ranging from 3,000 to 4,800 cubic feet and a weight of around 50 tons.[44] The less-than-carload freight which the railroads carry averages only about 400 pounds per shipment in weight and originates and terminates in thousands of different stations.[45] Because of the above factors which have prevented high equipment utilization at reasonably high load factors,[46] the railroads have offered numerous inducements to the less-than-carload shipper, such as free loading and unloading, pickup and delivery, etc., the costs of which have combined to cause the railroads to suffer a loss of $7.53 per ton on less-than-carload freight as against a substantial profit on carload traffic.[47]

[39] See definition of freight forwarders, note 4, *supra*.

[40] 3 CAB 698 (1942). [41] 2 CAB 531 (1941).

[42] Section 1(2) provides:

"'Air Carrier' means any citizen of the United States who undertakes, whether directly or indirectly or by a lease or any other arrangement, to engage in air transportation: *Provided*, That the Board may by order relieve air carriers who are not directly engaged in the operation of aircraft in air transportation from the provisions of this Chapter to the extent and for such periods as may be in the public interest." 60 STAT. 1352, 49 U. S. C. §401(2) (1946).

[43] 4 CAB 157 (1943).

[44] Testimony of Jervis Langdon, Vice-President of Air Cargo, Inc., in *Air Freight Forwarder* case, *supra* note 3.

[45] *Ibid.*

[46] A term used to signify the traffic/capacity relationship.

[47] *Freight Forwarding Investigation*, 229 I. C. C. 201, 311 (1938).

The surface forwarders thus found a natural "vacuum" ready for their operations. By taking the railroads' unprofitable less-than-carload traffic and turning it back to them in the form of profitable carload traffic, the forwarders contend that they perform a service beneficial to the railroads. Because of the large rate spreads due to the large cost differentials in handling carload as against less-than-carload traffic, the forwarders say that they have been able to perform this service at no extra cost to the shipper, and, because of certain desirable characteristics of carload as against less-than-carload shipments (such as more direct and speedy movement[48]), actually have provided a service superior to that which the railroads alone could provide.

Much the same situation exists in the field of motor transportation although a large part of the use by forwarders of motor carriers for line-haul transportation seems to result from the fact that they have been able to exact very favorable terms from motor carriers through special contracts and joint rates.[49]

The air transportation industry is not a suitable one into which to transplant the freight forwarders. Less-than-planeload traffic does not cost the air carriers more to handle than does planeload traffic.[50] The cargo capacity of combination aircraft is composed of several carrying units of different size. Small shipments receive the same routine expedited attention which planeload shipments receive. The certificated carriers load and unload all shipments, large and small, as an airplane cannot economically be parked on a side-track, and therefore must be unloaded promptly by the air carrier's employees. Because of the lack of cost differentials, there could be no justifiable rate differentials in favor of large shipments which could be passed on to shippers.[51] The forwarders could not improve upon the procedures of the certificated carriers in the handling of air freight in such matters as the tracing of shipments and the handling of claims as they assert they have improved on procedures in surface transportation.[52]

In view of the lack of public benefit which would result from the certification of air freight forwarders, it appears unsound to introduce into the air transportation field the myriad abuses which have resulted from forwarding activities in surface transportation, and other abuses which would be made possible because of the special characteristics of air freight transportation.

By consolidating small shipments into large, and securing the cheaper rate applicable to the latter, the forwarder in some instances may, if he wishes, offer the public rates which are cheaper than those of the direct carrier. The forwarder thus is able to build up a volume of traffic which it controls and may use this traffic as bait to induce competing direct carriers to offer more attractive rates or more

[48] Air Transport Association Exhibit 74, p. 5, in *Air Freight Forwarder* case, *supra* note 3.

[49] C. Allen Elggren, *What Part Should Freight Forwarders Have in the Development of the Air Freight Industry?* 14 J. AIR L. AND COM. 170, 184-188 (1947); *Freight Forwarder—Motor Common Carriers*, Agreements, Docket 29493—I. C. C.

[50] Testimony of Paul H. Brattain, First Vice-President of Eastern Air Lines, Inc., pp. W. 2772, 3, 4, 6-7, 8; W. 2814, of transcript of oral testimony in *Air Freight Forwarder* case, *supra* note 3.

[51] *Id.* at W. 99 and W. 1028-29.

[52] *Id.* at W. 2763-2767.

service to the forwarder. The record in the *Air Freight Forwarder* case contains a lengthy catalogue of the illegal concessions which the surface forwarders were able through their traffic "club" to exact from the surface carriers:[53] the furnishing of space and other facilities at less than cost;[54] preference in size of box cars;[55] lower charges for loading and unloading service;[56] permission to stop cars in transit under conditions other than those provided in the tariff;[57] expedited train and switching services;[58] and credit in violation of effective regulations.[59] The Interstate Commerce Commission has recognized the serious nature of the problem of abuses by forwarders, and has stated:[60]

> This proceeding demonstrates that any railroad refusing the demands of the forwarders would summarily sacrifice the traffic to another railroad, unless, of course, the railroads in general should combine in their efforts, and that is exactly what they have refrained from doing for fear of losing their individual prestige with a particular forwarder. There is doubt whether any legislation of this character designed to regulate the forwarder, as a shipper, could be enacted to avoid abuses even more grave than those under the present law.

The certificated air carriers, interested in the sound and wholesome development of the air transportation industry, are fearful of the undesirable practices which might be introduced into air transportation through the certification of air freight forwarders. The Board's statement,[61] ". . . we believe that even should a forwarder attempt such practices we will, pursuant to our powers under the Act, be able to prevent the harmful results that the direct carriers fear," offers scant comfort to the certificated carriers. Abuses of the sort mentioned above are insidious in character, because they involve the forced cooperation of the direct carriers, and would require constant vigilance on the part of the Board. The Board's inability to police even flagrant violations of the Act, because of lack of manpower, has been strikingly demonstrated in the wholesale violations of the certificate provisions of the Act by the so-called "non-scheduled" carriers. In the opinion of the certificated carriers the puny or non-existent benefits which the forwarders might offer air transportation are not worth such an exorbitant price.

III

THE AIR FREIGHT RATE CASE

Throughout the various air freight proceedings before the Board the *Air Freight* case applicants have argued in favor of their certification on the ground that they would provide lower air freight rates than the certificated carriers. They established air freight rates producing an average return of 13.29 cents per ton-mile despite the fact that they were losing money rapidly in doing so.[62]

[53] See discussion in Section II(B) of Brief of Air Transport Association to Civil Aeronautics Board, dated May 26, 1948, in *Air Freight Forwarder* case, *supra* note 3.

[54] *Freight Forwarding Investigation*, 229 I. C. C. 201, 217 (1938).

[55] *Id.* at 231. [56] *Id.* at 237. [57] *Id.* at 250-251.

[58] *Id.* at 263. [59] *Id.* at 264-265. [60] *Id.* at 303.

[61] *Air Freight Forwarder* case, *supra* note 3, p. 47 of mimeographed opinion.

[62] *Air Freight Rate* case, Brief of Public Counsel dated March 22, 1948, p. 15.

The certificated carriers filed on August 1, 1947, a consolidated air freight rate tariff providing a yield of approximately 20 cents per ton-mile between 100 and 1,200 pounds, and scaling down to 14 cents per ton-mile for 16,000 pounds and over.[63] Later some certificated carriers filed specific and all-commodity rates which proposed a yield of approximately 13 cents per ton-mile.[64] The Board suspended these proposed tariffs and entered into a general investigation of the air freight tariffs of all carriers, certificated and non-certificated.[65] This investigation was known as the *Air Freight Rate* case.

The two primary questions involved in the *Air Freight Rate* case were: (1) whether there should be a minimum rate order, and (2) whether the Board should require volume breaks[66] in air freight tariffs. The certificated carriers took the position that no minimum rates should be established by the Board, and that, because of the physical nature of air transportation, volume breaks are not justified. The Board in its decision in the *Air Freight Rate* case, however, did issue a minimum rate order providing minimum rates of 16 cents per ton-mile on the first 1,000 ton-miles of any shipment and 13 cents on all ton-miles in excess of 1,000, thus incorporating volume breaks in its order.

It should be pointed out that the *Air Freight Rate* case arose, in part, upon the complaint of the non-certificated *Air Freight* case applicants.[67] It appeared that these applicants, although they preached loudly the benefits of competition in their quest for certificates, were afraid of equal competition in actual practice. Concerning this situation the Board stated:[68]

> When the uncertificated carriers sought and were granted the right to compete on a scheduled common carrier basis with the certificated carriers, they asked and received the right to compete. They filed tariffs generally some 30 per cent below those of the certificated carriers. The certificated carriers in return filed tariffs on a selected list of commodities between selected points some 4 per cent below those of the uncertificated carriers. On other commodities, and other weights, and between other points, their old tariffs remained. Admittedly this is competition, even though it may not be competition at every point. But unless this be unfair competition, this is the very privilege that the uncertificated carriers asked and were granted. The exemption accorded them certainly was not that of a one-sided right, namely the right to compete against the certificated carriers and the privilege to be protected against competition from them.

As has been pointed out above, because of their ability to spread numerous expenses among their freight and other services, the certificated carriers naturally can provide lower air freight rates than all-cargo carriers whose entire expenses must be charged to their freight services. The non-certificated carriers during the course of the *Air Freight Rate* case attempted to discount this obvious advantage of the cer-

[63] *Id.* at 1.
[64] *Id.* at 2.
[65] Board Order Serial No. E-1016, dated November 24, 1947.
[66] Rates that reduce at intervals according to the weight of the shipment.
[67] See note 64, *supra.*
[68] *Motions of Air Freight Forwarder Association, et al.*, 8 CAB 469, 472 (1947).

tificated carriers by artificial allocation theories in which they advocated an equal ton-mile allocation of all expenses between freight and other services even though such allocation would load the freight services with expenses not attributable thereto. They attacked the validity of basing air freight rates on the maximum gross return possible over out-of-pocket costs, even though this is a sound rate making principle, employed and sanctioned for years in surface transportation.[69] They adopted the ostrich-like view condemned by Locklin:[70]

> There is a school of thought, however, which believes that overhead costs should be allocated to particular kinds and units of traffic and that all rates should be based on these allocations. The advocates of this view maintain that cost accounting has developed into a science and that practically all costs can be allocated. This view seems to rest upon a failure to understand the economic principles involved. It is true that all costs can be allocated, but as one writer has expressed it, "that fact of itself is no more significant than is the possibility of obtaining an arithmetical average of any fortuitous collection of numbers."

The Board's decision in the *Air Freight Rate* case unfortunately turned apparently on the Board's desire to protect the non-certificated carriers from the competition which they had advocated, despite its prior utterances in the *Motions of the Air Freight Forwarder Association, et al.*[71]

The *Directional Commodity Rate* case is an outgrowth of the *Air Freight Rate* case, which was left open to petitions for reconsideration and modification of the minimum rate order therein established.[72] Several petitions proposing less-than-minimum directional commodity rates have been filed, a hearing has been held, and briefs to the Board have been filed. In general, it is the position of the certificated carriers that there should be more reliance upon sales effort to correct the problem of directional unbalance of traffic, rather than upon the panacea of directional rates. The all-cargo carriers, reversing their previous stand on the out-of-pocket cost concept, fervently espouse widespread application of extremely low directional commodity rates.

As appears from the above brief résumé of several proceedings, the air cargo transportation industry is dynamic. Our hope is that the Civil Aeronautics Board will give its growth sound direction and not permit it to develop the defects which have characterized other transportation enterprises.

[69] DAVID P. LOCKLIN, ECONOMICS OF TRANSPORTATION, c. 7 (1947).
[70] *Id.* at 157-158.
[71] *Air Freight Rate* case, pp. 5-6 of Tentative Opinion, dated April 21, 1948.
[72] Order Serial No. E-1639, dated June 2, 1948, p. 3.

THE POSITION OF THE FREIGHT CARRIERS BEFORE THE CIVIL AERONAUTICS BOARD

STEPHEN AILES*

Who should be in the air freight business, and what are the proper rules of the game? These two questions state the central issues in a battle that has been waged before the Civil Aeronautics Board since the spring of 1946. The contestants on one side have been the certificated passenger air lines,[1] their trade association,[2] and their wholly owned cargo ground service subsidiary.[3] The carriers in this group, for convenience and because the term describes their principal business,[4] will hereafter be referred to as the "passenger carriers." The contestants on the other side have been a group of new companies, organized after the cessation of hostilities in the last war, who have devoted almost all of their energies to the development of commercial air freight. For convenience, and again because the term describes their principal business,[5] these carriers will be referred to as the "freight carriers."

The battle before the CAB has been long and bitter, and it is still going on. That it has been long will be apparent from a glance at the proceedings involved. The *Air Freight* case,[6] in which the issue of certification of freight carriers was directly posed, alone has required 65 days of hearings, some 30,000 pages of testimony and exhibits, briefs before examiners, a full year's study by the examiners, a lengthy examiner's report, briefs before the Board, oral argument before the Board, a reopened hearing in order to obtain some additional evidence, a second oral argument before the Board, a tentative decision by the Board, exceptions thereto, new briefs, still another argument before the Board, and at long last, a final decision, on August 2, 1949, on applications most of which were filed in the spring of 1946.

Other proceedings have included the *Air Freight Rate* case,[7] in which the freight carriers sought and received from the Board a minimum rate order[8] halting the

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[1] Principally American Airlines, Inc., United Air Lines, Inc., Eastern Air Lines, Inc., Transcontinental and Western Air, Inc., Capital Airlines, Inc., Braniff Airways, Inc., and Chicago and Southern Air Lines, Inc.

[2] The Air Transport Association.

[3] Air Cargo, Inc.

[4] Even as late as 1948, passenger traffic accounted for 91.6 per cent of the non-mail revenue of the then certificated trunk line carriers, according to Roadcap, Airline Record 1949. Freight revenues reported to the CAB at slightly over 11 million dollars accounted for slightly more than 3 per cent of this revenue.

[5] Most of the applicants in the *Air Freight* case have been "freight only" carriers. They have never been permitted to carry air express and have not sought the right to carry air mail or passengers. Some of these companies have had outside sources of revenue from overhaul, maintenance, and modification work, or leasing of aircraft.

[6] CAB Docket No. 810.

[7] CAB Docket No. 1705.

[8] CAB Order, Serial No. E-1639, issued June 2, 1948.

passenger carriers' attempts to decide question number one (who should be in the air freight business) by means of a rate war. Since the rate case, we have had four modifying orders[9] and a lengthy hearing on the subject of whether less-than-minimum backhaul rates may continue to be employed.[10] In addition, the freight carriers, for reasons which will be apparent later on, have intervened in mail rate proceedings[11] in support of their belief that the sound development of air freight requires a firm decision that mail subsidy will not be used to underwrite freight operations of the passenger carriers.

That this fight has been bitter is understandable. The freight carriers, with all the energy and enthusiasm of the pioneer, have been prepared to fight for the privilege of going forward with a business which they feel they have started. The passenger carriers, on the other hand, never distinguished for their hospitality toward newcomers to the aviation field,[12] have been particularly resentful of the newly arrived freight carriers, described in a recent Board document as among the "have nots" of aviation.[13]

The Civil Aeronautics Act of 1938, with its subsidy provision,[14] has meant, so far at least, that any carrier once engaged in commercial air transportation is there for good, and need have no fear of bankruptcy or failure.[15] As a result, the passenger carriers have viewed with real alarm the prospective permanent dilution of their claim on the United States Treasury when any new carrier has sought admission to the club. They have viewed with even more alarm the arrival of freight

[9] These orders have added temporary less-than-minimum backhaul rates for certain commodities.

[10] This investigation, generally referred to as the Directional Rate Investigation, was addressed to the question of whether these temporary backhaul rates should be continued and whether additional ones should be added.

[11] Principally the *Big Four Mail Pay* case, CAB, Docket No. 2849, the *Big Four Financial Investigation*, CAB, Docket No. 3663, and *Mail Cost Investigation of All Trunk Lines*, CAB, Docket No. 3666.

[12] Examples of their vigorous opposition to other potential entrants into the aviation field may be found in the *Feeder* cases dealing with the certification of small feeder airlines, the *Freight Forwarder* case in which freight forwarders sought to engage in "indirect" air transportation, and the "Sea-Air" fight, the common name for the controversy over whether or not steamship lines or other surface carriers could own or operate airlines. In fact, even the Railway Express Agency, responsible for almost all of the passenger carriers' pre-1945 property transportation, was told in the course of the *Freight Forwarder* case that there would be no place for REA in aviation once the passenger carriers had Air Cargo, Inc., in full operation. CAB citations for these matters are as follows:

Local Feeder and Pick-Up Air Service, 6 CAB 1 (1944) and subsequent regional cases; the *Freight Forwarder* case, CAB, Docket No. 681; American President Lines, Ltd., *et al.*, Petition 7 CAB 799 (1947) and subsequent separate carrier cases. For REA disavowal see Examiner's Report in the *Freight Forwarder* case (Docket No. 687), pp. 76-77.

[13] See Respondent's Objections to Petition for a Stay, filed August 11, 1949, by the CAB in the pending case of American Airlines, Inc. v. Civil Aeronautics Board, No. 10374, United States Court of Appeals for the District of Columbia.

[14] "In fixing and determining fair and reasonable rates of compensation [for the carriage of mail] . . . the Board shall take into consideration . . . the need of each such air carrier for compensation for the transportation of mail sufficient . . . together with all other revenue . . . to enable such carrier under honest, economical, and efficient management, to maintain and continue the development of air transportation. . . ." Sec. 406(b), Civil Aeronautics Act of 1938, 52 STAT. 998 (1938), 49 U. S. C. §486(b) (1946).

[15] This statement must be qualified to the extent that the Board has taken steps toward the revocation of two feeder line certificates.

carriers who insist that they can operate without direct government subsidy of any kind, because these carriers, with that threat, in effect throw doubt on the need for continuation of government subsidy for the passenger carriers at all.

Issue number one, "Who should be in the air freight business," has been decided, at least in so far as the administrative process is concerned. The case was called the *Air Freight* case, Docket 810 *et al.* That case was a proceeding to review and rule upon applications filed by thirteen freight carriers for certificates of convenience and necessity. In that proceeding (aside from questions of fitness and ability of individual carriers which are beyond the scope of this paper) the position of the freight carriers may be stated as follows:

(1) The public interest requires that air freight service expand and grow until it becomes a major component of the nation's air transportation system.
(2) It is in the public interest that such an air freight service be developed efficiently, soundly, and rapidly.
(3) Freight carriers carrying nothing but freight will aid substantially in this development.
(4) The presence of freight carriers will work no injury on previously certificated passenger carriers; much less will any such injury offset the benefit to be gained.

The first two propositions have not been the subject of great debate. Most every observer realizes that the large fleet of all-cargo aircraft, immediately convertible to wartime use,[16] which a fully developed air freight system would require, would be a tremendous asset to the nation in the event of war. Furthermore, almost everyone agrees that a fully developed air freight industry would be a substantial aid to the functioning of the nation's economy and the lowering of costs and increasing of speed of distribution in time of peace.[17]

The argument has centered around the third and fourth of the propositions stated above. As to the third, it has been the position of the freight carriers that single-purpose companies, who must look to air freight and air freight profits as their principal source of income, will have an incentive to go forward with the business, to search for new traffic, and to seek new methods of improving efficiency, which a multi-purpose carrier would not have. This, incidentally, is a theory which

[16] A passenger plane with its plush interior and fixed seating arrangement must be altered substantially before it is of value for military transport use. Not only must the seats and plush lining be removed, but the floor must be strengthened and a tie down arrangement installed. When this is done, the passenger plane is only as ready for military use as is the freight plane in the first instance. If real cooperation on plane requirements between the air force and companies engaged in air freight service can be achieved, then the air freight fleet can be a military air transport fleet *in being* in the event of war.

[17] See the statement of the Secretary of Commerce before the President's Air Policy Commission on November 26, 1947, speaking by analogy of the effects of the improved railroad service after World War I, "The most important factor, however, was the reduction in inventories which was made possible by the improved services, in addition to the capital savings ultimately resulting in lower prices; the reduced need for large and relatively idle inventories increases the stability of our economy."

has the whole-hearted support of the passenger carriers when they attempt to fight off the threatened invasion of the aviation field by steamship lines and railroad companies.[19]

Furthermore, the freight carriers contend that since they have not sought government subsidy, and will not receive it, but must be dependent on freight revenues and profits if they are to be successful, it follows that they have an incentive to keep costs down which no other air carrier has, or could have, and the lowering of costs for air freight is an absolute *sine qua non* to the development of the business, since low rates depend on low costs, and without low rates no major increases in volume can be achieved.

In support of these propositions, the freight carriers point to the record of what has happened in air freight so far, and the part which they have played in it. Prior to 1945 the volume of air freight which had been carried was so small that it was not even reported separately to the Civil Aeronautics Board. In 1945 the total amount of air freight reported was 1,227,527 ton-miles.[20] The smallness of this figure can be understood when it is realized that one plane with a capacity of but 10,000 pounds hauls 12,200 ton-miles of air freight on one trip from New York to Los Angeles. As of January 1, 1946, only American Airlines and TWA had freight tariffs on file. American's tariff had been filed in October, 1944, and listed rates averaging around 35 cents a ton-mile and going as high as 50 cents, rates which negative any desire or intent to engage in a volume air freight business.

Early in 1946 the picture changed markedly. A substantial group of new companies was formed, largely by young men anxious to apply the material hauling and handling techniques and methods developed by the Air Transport Command and the Naval Air Transport Service to commercial transportation. All of these companies were long on enthusiasm, and some were adequately financed. The founders of these companies were convinced that air freight costs could be reduced low enough to permit rates which in turn would attract air freight business in volume. American Airlines' figure of 35 cents was demonstrably much too high.

Slick Airways started in business in March of 1946 with rates at 18 cents a ton-mile, and was shortly enabled to reduce them to 14 cents as costs per ton-mile declined with volume. With the establishment of these rates commercial air freight was born.

By the end of 1946, ten freight carrier applicants in the *Air Freight* case, operating at the time as contract carriers, had hauled an estimated 27,000,000 ton-miles

[19] In that controversy, the fact that they are engaged in air transportation alone is urged as the reason why they are better able to go forward with the business than any surface carrier would be. "Air transportation is not an adjunct to anything; it is a new business selling a new product and the responsibility for the solution of its problems must be given to those whose sole interest lies in developing it. The United States air transportation cannot reach its full potentiality in the hands of those who regard it as a part-time job." (Statement of Robert Ramspeck, Executive Vice-President, Air Transport Association, hearings on bills relative to overseas air transportation, pp. 1018-19.) The freight carriers say that the same thing is true about air freight.

[20] Reports to CAB.

of freight. Of this total, Slick Airways had hauled 11,198,322[21] ton-miles, or over nine times the total passenger carrier haul reported for the preceding year, 1945. This demonstration of the possibilities inherent in the transportation of freight by air did not go unnoticed by the passenger carriers. In 1946, twelve passenger carriers carried 13,969,227 ton-miles of air freight in domestic operations.[22] No one seriously contends that the passenger carriers would have hauled more than this amount had no new freight carriers come into the field. Actually, most observers agree with an expert from the Department of Agriculture, who testified in the *Air Freight* case as follows:[23]

> It is my opinion that these carriers (the freight carriers) have had a profound effect on the development of air freight. I am convinced that, if these specialized air freight carriers had not been in existence during the past year or more, the reduction in air freight rates which has occurred would have been much less, the volume of air freight handled would have been of minor proportions, and we would not have explored air cargo potentials to nearly the extent which has been done.

The year 1947 saw a continuation of the phenomenal growth of air freight. Freight carriers carried 45,299,885 ton-miles of air freight, and sixteen passenger carriers carried 38,870,698 ton-miles.[24] This total of nearly 84,000,000 represents a phenomenal increase over the 1,000,000 figure of two years before. Slick Airways again was in the van with a total of 21,937,083 ton-miles.[25]

The year 1948 saw the freight industry grow to the imposing figure of 116,000,000 ton-miles. Of this total, the passenger carriers carried some 70,000,000, and the freight carriers carried approximately 46,000,000.[26] The decline in the share of the freight carriers is accounted for largely by a reduction in the number of companies still participating in the business.[27] The regulatory process had taken a long time and a sharp application of economic sanctions by the passenger carriers had taken its toll. The leader in the field, however, still was Slick Airways with 26,581,718 ton-miles hauled in 1948 as against 21,818,133 ton-miles for American Airlines.[28]

The freight carriers also contend that the fourth proposition—namely, that the certification of freight carriers would work no substantial injury to the passenger carriers—is largely answered by this record in air freight. The record demonstrates that the freight carriers' presence in the business has actually increased the amount of freight which the passenger carriers have carried and, further, that those passenger carriers who have had the most competition from freight carriers have carried the most freight. Besides, the freight carriers contend, even if the passenger carriers were to lose freight business to the freight carriers, it is not clear that such losses

[21] Reported by Slick Airways, Inc., to CAB.
[22] Reports to CAB.
[23] *Air Freight* case, Docket 810, Transcript 4008-4009.
[24] Final opinion the *Air Freight* case, Docket 810 *et al.*, decided July 29, 1949, p. 10.
[25] Slick Airways, Inc., reports to CAB.
[26] See note 24, *supra*.
[27] Only three or four freight carriers were active throughout 1948.
[28] Reports of both companies to the CAB.

would cause financial injury. As is pointed out hereafter, it is doubtful that the freight business can be so coordinated with the passenger business, as presently operated, as to make the freight business profitable to the passenger carriers.

On August 2, 1948, certificates of convenience and necessity for transcontinental routes were awarded to two air lines, Slick Airways, Inc.,[29] and the Flying Tiger Line,[30] and a north-south certificate, covering a route from Florida and Louisiana to New York and the midwest, was awarded to United States Airlines.[31] In addition, Airnews received a certificate calling for local operations in southern Texas.[32] In the course of the opinion accompanying this decision the Board found:[33]

The certification of unsubsidized all-cargo carriers requires such carriers to bend their efforts and to direct their abilities and skill to the full development of the air freight potential. Such carriers will not be able to rely on passenger operations or mail payments to furnish the greater portion of their revenues. They will live and prosper only

[29] Slick Airways, Inc., authorized to engage in air transportation with respect to property, for a period of five years, between any point or points in any of the following groups of points and any point or points in any other of said groups: the terminal point Los Angeles, the intermediate points, Bakersfield, Brawley-El Centro, Fresno, Long Beach, Oakland, Sacramento, Salinas-Monterey, San Diego, San Francisco, Santa Barbara, Stockton, and Thermal; the intermediate point Phoenix; the intermediate points Brownsville, Corpus Christi, Eagle Pass, Fort Worth-Dallas, Houston, Laredo, Mission, and San Antonio; the intermediate point Kansas City; the intermediate points Akron, Chicago, Cincinnati, Cleveland, Columbus, Dayton, Detroit, Fort Wayne, Indianapolis, Louisville, Peoria, St. Louis, South Bend, and Toledo; the intermediate points Allentown, Baltimore, Boston, Harrisburg, Hartford, New York, Newark, Philadelphia, Pittsburgh, Providence, Washington, Richmond, and Wilmington; the intermediate point Rockland; and the terminal point Portland.

[30] The Flying Tiger Line, Inc., authorized to engage in air transportation with respect to property, for a period of five years, between any point or points in any of the following groups of points and any point or points in any other of said groups: the terminal point Los Angeles, the intermediate points Bakersfield, Brawley-El Centro, Fresno, Long Beach, Oakland, Sacramento, Salinas-Monterey, San Diego, San Francisco, Santa Barbara, Stockton, and Thermal; the intermediate points Longview, Portland, Seattle, Wenatchee, and Yakima; the intermediate point Minneapolis-St. Paul; the intermediate point Denver; the intermediate points Des Moines and Omaha; the intermediate points Akron, Chicago, Cleveland, Detroit, Fort Wayne, Grand Rapids, Milwaukee, South Bend, and Toledo; the intermediate points Albany, Binghamton, Boston, Buffalo, Hartford, New York, Newark, Philadelphia, Providence, and Rochester; the intermediate point Rockland; and the terminal point Portland.

[31] U. S. Airlines, Inc., authorized to engage in air transportation with respect to property, for a period of five years, (1) between any point or points in any of the following groups of points and any point or points in any other of said groups: the terminal point Miami, intermediate points Atlanta, Belle Glade, Fort Myers, Jacksonville, Lakeland, Ocala, Orlando, Sarasota-Bradenton, Birmingham, Savannah, Tampa-St. Petersburg, Valdosta, and West Palm Beach; the intermediate points Baton Rouge, Gulfport-Biloxi, Hammond, Mobile, Morgan City, and New Orleans; the intermediate points Akron, Chicago, Cincinnati, Cleveland, Columbus, Dayton, Detroit, Grand Rapids, Indianapolis, Louisville, Milwaukee, South Bend, and Toledo; and the terminal point Minneapolis-St. Paul; and (2) between any point or points in any of the following groups of points and any point or points in any other of said groups: the terminal point Miami, intermediate points Atlanta, Belle Glade, Fort Myers, Jacksonville, Lakeland, Ocala, Orlando, Sarasota-Bradenton, Birmingham, Savannah, Tampa-St. Petersburg, Valdosta, and West Palm Beach; the intermediate points Baton Rouge, Gulfport-Biloxi, Hammond, Mobile, Morgan City and New Orleans; the intermediate points Albany, Allentown, Baltimore, Binghamton, Boston, Buffalo, Harrisburg, Hartford, Newark, Philadelphia, Pittsburgh, Providence, Rochester, Washington, Richmond, and Wilmington; and the terminal point New York.

[32] Airnews, Inc., authorized to engage in air transportation with respect to property, for a period of five years, between the terminal point San Antonio, the intermediate point Beeville, and the terminal point Corpus Christi; and between the terminal point San Antonio, the intermediate points McAllen and Harlingen, and the terminal point Brownsville, subject to condition.

[33] Final opinion the *Air Freight* case, Docket No. 810, decided July 29, 1949, pp. 30-31.

through their ability to develop an economic business and by constant search for new techniques, new business, and new equipment. To the extent that they succeed in such endeavors, they will, by their example, benefit the presently certificated carriers and air transportation as a whole.

The decision in the *Air Freight* case brings to a conclusion the administrative phase of the process by which the question, "Who should be in the air freight business," is to be determined. The passenger carriers, however, have not been content to rely on the judgment of the Civil Aeronautics Board, and subsequent reviewing courts, in their effort to obtain a decision which reserves the field solely to them. They have undertaken by competitive means to drive all prospective applicants from the air freight field, and these efforts have met with an unfortunate degree of success.[34] It is this last campaign which has given rise to the second issue, "What are proper rules of the game," an issue which is still before the Board and before Congress as well.

To see the competitive picture in its true light, one must remember that the passenger carriers have not ordinarily been advocates of a low-rate-high-volume approach to air transportation. For instance, passenger rates per ton-mile have stayed in the neighborhood of 55 cents to 60 cents for some time and, with the exception of Capital Airlines, the passenger carriers are still either opposed[35] or were somewhat reluctant and recent converts to the low rate coach service type of business,[36] where rates are in the neighborhood of 40 cents a ton-mile. The public pays an average rate of 61 cents a ton-mile for air express, and the Railway Express Agency has been completely unsuccessful in its efforts over the last several years to obtain the passenger carriers' consent which, under the contract, is a prerequisite to a rate reduction.[37] The so-called "service" rate for the carriage of mail for the major passenger airlines which are not in the "need" class[38] runs in the neighborhood of 60 cents a ton-mile.[39] Air parcel post rates under an act sponsored by the passenger carriers are paid 60 cents and up a ton-mile for carrying it.[40]

[34] The gory details may be found in the dissenting opinion of Member Jones in the *Air Freight* case, Docket No. 810, *et al.* Member Jones does not discuss the part the passenger carriers played in bringing about these losses.

[35] Some, such as United Air Lines, Inc., as of October, 1949, still did not believe in the coach business.

[36] Eastern Air Lines, Inc., instituted its first coach service at the end of September, 1949. American announced in late October that a 45 cents a ton-mile service would be instituted in January, 1950.

[37] Transcript of testimony, *Air Freight Rate* case, Docket No. 1705 *et al.*, pp. 2645-7.

[38] Carriers in the "need" class included those carriers whose mail pay is in excess of the amount necessary to pay the costs of the mail service, plus a reasonable return to the carrier. A "service" rate as distinguished from a "need" rate would presumably be a rate which includes no element of subsidy. That this is not the case, however, is apparent from the opinions of the Board establishing the present "service" rate. Dockets Nos. 3309, 3021, 3211, 2849, 3014, March 29, 1948.

[39] Dockets Nos. 3309, 3021, 3211, 2849, 3014. Mail rates for these carriers are set on a sliding scale depending on volume. The range is from 45 cents a ton-mile to 75 cents, but has averaged, according to CAB records, in the neighborhood of 60 cents.

[40] Apparently no data are available indicating the average ton-mile rate paid by the public for air parcel post; however, the carriers are paid for the carriage of parcel post as if for letter mail. Accordingly, air parcel post rates to the public should be in excess of 60 cents a ton-mile, unless the post office is to suffer substantial losses in this business. The freight carriers urge that legislation be passed

The founders of the new postwar freight lines, on the other hand, were convinced that rate policies such as these would effectively block the development of any appreciable volume of commercial air freight. The rates in American's 1944 tariff had reflected such a policy and had resulted in the generation of no appreciable freight traffic. Accordingly, convinced that economical operations would justify low rates, the new carriers went into business in early 1946 at rates in the neighborhood of 18 cents, and soon thereafter reduced them to 14 cents as costs dropped with increasing volume. These carriers were at that time operating as contract carriers, since the authority to engage in common carrier operations was not effective until August 1, 1947,[42] and accordingly filed no tariffs.

The first inkling of what was to be expected from the passenger carriers in the rate field came in the middle of June, 1946, when American Airlines announced the organization of its Contract Air Cargo Division.[43] There was considerable publicity about the rates that this division would charge[44] and, apparently in keeping with American's purpose, the rate level in air freight was immediately and severely depressed. For instance, for Slick Airways the average rate on the freight business dropped to 10.4 cents a ton-mile, although representatives of that company have always insisted that they never once undercut one of American's offerings of service.[45] CACD was not long in the field, but the process of convincing shippers that freight rates had to be higher than those announced by American was difficult.[46]

Contract rate levels had been worked back up to between 12½ cents and 13 cents a ton-mile by July of 1947. With the approach of August 1, 1947, the effective date of permission to engage in common carrier operations, Slick Airways filed its first common carrier tariff, containing rates averaging around 12.75 cents per ton-mile, rates slightly above the level to which its contract rates had been raised by that time, and rates at which Slick Airways could operate at a profit as September and October operations that year proved. Similar tariffs were filed by most of the freight carriers who planned to operate under the Noncertificated Cargo Carriers Exemption Order, Section 292.5, of the Economic Regulations of the Board.

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under which carriers would be paid for carrying parcel post at rates prevailing for air freight. This could have meant air parcel post available to the public at something like 25 cents a ton-mile, and a profit to the post office.

[42] Section 292.5 of the Economic Regulations of the CAB. Under a recent recodification this section is now known as Part 295.

[43] American Airlines, Inc., took the position that it could engage in transcontinental off-route air freight operation with a large maintenance base at St. Joseph, Missouri, apparently on the theory that these operations were authorized under Section 401(f) of the Civil Aeronautics Act. "Any air carrier may make charter trips or perform any other special service, without regard to the points named in its certificates under regulations prescribed by its authority." 52 STAT. 987 (1938), 49 U. S. C. §481(f) (1946).

[44] See American Aviation Daily, June 6, 1946, describing CACD publicity: "Tariffs will be based on volume and frequency and the rate structure is said to be not only the lowest ever promulgated by any airline, but is generally under the lowest rates quoted by non-scheduled carriers."

[45] See Slick Airways, Inc.'s Brief to the Board in the *Air Freight Rate* case, p. 7.

[46] American Airlines, Inc.'s publicity about 11 cents a ton-mile rate made the job of selling 12 cent and 12½ cent rates extremely difficult.

As of August 1, the passenger carriers put into effect a consolidated tariff known as the Johnson tariff with rates averaging in the neighborhood of 26 cents a ton-mile, and going down as low as 14 cents (only for shipments of 16,000 pounds and above). Shortly more than a month later, however, American, PCA, TWA, and United filed tariffs to become effective October 5, 1947, for a list of specific commodities, accounting for the bulk of air freight business at that time. These rates in the new tariffs applied only to points served by the freight carriers and operated to undercut the existing tariffs of the freight carriers on approximately one-half of the business.[47] Petitions to suspend these tariffs were promptly filed by the freight carriers and promptly denied by the Board.[48] This last step resulted in further cuts and reductions by American, PCA, and TWA, to become effective late in October. Petitions to suspend were again filed and were on this occasion granted and the whole matter of rates in air freight was set down for hearing.[49]

The freight carriers insisted that the passenger carriers, in spite of substantially higher costs of operation, were attempting to drive the freight carriers out of the business by means of a rate war, and they pointed out that even their own tariffs, filed on August 1, had become too low as the result of sharp increases in the price of gasoline, and some raises in wages in line with the general trend at that time.[50] The passenger carriers, on the other hand, begged for freedom of action with respect to rates, contending that the industry was still in the development phase and that the rigidity which any form of rate regulation would impose would seriously hamper development.[51] They also contended that cut rates could be justified on the basis of their costs, such costs being computed for this purpose on what the Board later called the "no cost theory" or on the "additive" or "out-of-pocket cost concept."[52] The essence of each of these theories was that the air freight service should be made to bear only that portion of the airlines' costs which could have been avoided had no freight been carried.[53] The Board rejected the contentions of the passenger carriers and issued a rate order forbidding rate reductions below 16 cents a ton-mile for the first 1,000 ton-miles, and 13 cents a ton-mile thereafter.[54]

For the most part, this action effectively brought the rate war to an end. Except for the fact that the order has served to retard the development of certain perishable and other items needed to correct the traditional directional unbalance in traffic by strengthening the backhaul from California to New York and from Texas to New York, the order has been extremely salutary. It need not have had even this retard-

[47] For a discussion of these and the later rate cuts, see the opinion of the Board in the *Air Freight Rate* case, Docket No. 1705, *et al.*, decided April 21, 1948, pp. 234 and 235.

[48] CAB Order, Serial No. E-852 and E-853.

[49] CAB Order, Serial No. E-916.

[50] These increases amounted to over $20,000 a month for Slick Airways, Inc., alone.

[51] See briefs filed on behalf of the principal passenger carriers in this proceeding.

[52] See the Board's opinion in the *Air Freight Rate* case, Docket No. 1705 *et al.*, pp. 8 and 9.

[53] These theories produce some remarkable results. For instance, unit costs *increase* with volume, since volume requires additional freight handlers, and, sooner or later, all-cargo planes, which must be charged, in part at least, to the freight business.

[54] CAB Order, Serial No. E-1639.

ing effect, but for the passenger carriers, who, *mirabile dictu*, after resisting with all their energy the establishment of minimum rates for the west and southbound haul for commodities for which there is considerable competition, have reversed their position and become disciples of rigidity in rate regulation in so far as less-than-minimum rates for commodities not now moving by air are concerned.[55]

This history of the activities of the passenger carriers in the rate field demonstrates that the ousting of the freight carriers is the prime objective. Therefore, it is only natural that other than rate methods of competition have been used as part of this effort. Extravagant offerings of service, illustrated by the unbelievably low load factors of the passenger air lines' all-cargo flights,[56] expensive advertising and propaganda campaigns,[57] have been used and represent, in the opinion of the freight carriers, improper forms of competition for air freight, particularly if these offerings of service and advertising and propaganda campaigns are financed not out of receipts from air freight, but rather by mail subsidy or, perhaps, by revenues from a suddenly profitable passenger business.

The passenger airlines have resisted every effort to determine what the air freight service actually costs them. American Airlines went through the whole *Air Freight Rate* case in apparent complete ignorance of what its costs per ton-mile were for

[55] Compare the following statements: The first from American Airlines, Inc.'s brief to the Board in the *Air Freight Rate* case, when American was arguing against any rate regulation:

"What the future holds in the way of rate adjustments that may be essential to full utilization of cargo equipment cannot be foretold at this time. An indication of the type of adjustment that may prove useful lies in the historical unbalance of traffic movement. The produce grown in California and Texas may be a partial solution that would bring about a better balanced freight operation, but such traffic may move only at a lower rate than is necessary to create westbound and southbound volume. Anyone concerned with the continued development of freight recognizes this, but the non-certificated carriers ask you to embark upon a minimum rate regulatory program which must inevitably interfere with such developments."

The second from American's brief in the *Directional Rate* case, where American is opposing any less-than-minimum rates designed to produce new traffic:

"The justification for these departures from the established minimums is that the volume of traffic moving in those directions is substantially less than the movement in the opposite direction. American Airlines urges the Board to disapprove the rates requested because they are unrelated to the present or attainable costs of providing freight service and because they will prevent the sound and economic development of the freight rate business."

[56] See American Airlines, Inc.'s Exhibits in the *Air Freight* case, Docket No. 810, *et al.*, dated November, 1948, Parts E and I.

[57] See American Aviation Daily of July 6, 1948:

"A two-page advertisement appearing in the July 3 issue of Editor and Publisher, over the signatures of 'The Established Airlines of the United States,' calls attention to the job the certificated airlines have done in developing air cargo since the war and outlining their arguments against certification of the all-cargo airlines seeking to enter the field in competition with them. Petition of the freight lines is termed 'a threat to the air transportation rights of all the 400 towns and cities now served, and to the economic stability of the airline systems serving the United States.' The ad also appeared in 'Broadcasting' and in 'Publishers' Auxiliary.' "

See also American Aviation Daily, July 16, 1948:

"The Air Transport Association currently is distributing through its Public Relations Advisory Committee and member airlines 75,000 copies of a pamphlet titled 'Fact and Fiction Regarding the Nation's Airlines,' in which it presents the case of the 'established airlines' (*i.e.*, the certificated lines) in their fight to block certification of all-cargo carrier applicants in the Air Freight Case."

carrying freight.[58] The Civil Aeronautics Board has from time to time indicated that accurate and usable information on this subject was imperative if proper regulation in this field was to be had, stating, in the opinion in the *Air Freight Rate* case in April, 1948:[59]

> In this connection it is apparent from the record that the development of more reliable cost data will become increasingly necessary if the air freight service expands.

During the past year lengthy hearings were held before the so-called Johnson Committee in the United States Senate on legislation designed to sever subsidy from mail pay.[60] Any such severance would, as a corollary measure, require the separate costing of the freight service. Desirable as such legislation is, it is the position of the freight carriers that no new legislation is required to achieve this end, but that the Civil Aeronautics Board could and should establish a method of allocation for determining the cost of this service. Of course, any method of allocation is subject to criticism, and the passenger carriers to date have limited their contribution to the problem by pointing out the fallacies in whatever method is suggested without ever coming forward with one which they recommend. The freight carriers feel that the Board should select a method, to be changed or improved when the passenger carriers come forward with a better one.

The importance of this problem cannot be overstated. It has been contended, for instance, that in 1948 the passenger carriers lost $12,000,000 carrying air freight on which the revenue was considerably less than that figure.[61] Of course, this may or may not be true, depending upon the validity of the allocations of joint cost[62] which are used. While it is perfectly true that any calculation of air freight costs of the passenger carriers depends on a series of arbitrary assumptions and is subject to criticism on some score or other, it is equally true that if one of the freight carriers, such as Slick Airways, were to operate with the load factors which the passenger airlines have experienced and were to add to its operating costs the costs of the advertising and the contributions to ATA and Air Cargo, Inc., the freight airline would soon be in bankruptcy.[63]

The metaphysics and the ethics of this situation can be debated at length. No one will come up with a formula for determining to the satisfaction of everybody and for all purposes just what air freight costs the passenger carriers per ton-mile. Nevertheless, from the point of view of the freight carriers, it is imperative that the Civil Aeronautics Board announce that freight losses will not be made up out of

[58] American has since indicated by statement of counsel in the course of the last oral argument of the *Air Freight* case that current rates barely cover direct operating costs. *Air Freight* case, oral argument, June 13, 1949, Vol. I, p. 10.

[59] See opinion *Air Freight Rate* case, Docket No. 1705, *et al.*, decided April 21, 1948, p. 10.

[60] The Senate Committee on Interstate and Foreign Commerce.

[61] 16 J. AIR L. AND COM. 253, 268 (1949).

[62] Joint costs are taken to include all costs not directly attributable to a specific service, such as the president's salary, office rent, flying costs, etc.

[63] See Slick Airways, Inc.'s Exhibit SA-3, p. SA-5 in the *Air Freight Rate* case, Docket No. 1705 *et al.*, dated January 28, 1949.

mail pay and that the Board select a formula for determining freight costs for the purpose of enforcing this rule. The freight carriers recognize that some of the passenger carriers have contended that their freight operations, although operated at a loss, if the costs thereof are determined on an allocated basis, have none the less served to reduce the mail pay needs of these carriers because a substantial portion of these costs have to be incurred anyway. Arguments and calculations of this latter sort cease to have validity as the air freight operations of the passenger carriers expand, and particularly as the passenger carriers begin to employ all-cargo flights for the purpose of handling air freight. In addition, a proper formula for allocating costs will reflect the much higher cost of the all-cargo service and will give the passenger carrier the benefit of lesser costs on the freight hauled in passenger planes and on passenger schedules. As a matter of regulatory policy, dictated by the public interest in the future development of the air freight industry, and required by simple fairness, the Board must take, at an early date, some such step to see to it that the United States Treasury ceases to underwrite one side in the air freight battle. The Board should further require that the passenger carriers, in their published financial data, disclose the relationship between freight revenues and freight costs determined on the basis of the allocation described above.

Possibly it is too much to ask that the passenger carriers be prevented from using their own capital or revenues from the passenger and express business to pay the costs of competing for air freight. Certainly, however, the freight carriers have a right to ask that the United States Treasury not be used to subsidize the fight against them and, further, that to the extent that capital and other revenues of the passenger carriers are used to support the competitive effort, the stockholders, the Board, and the general public be so informed.

If such action had been taken long ago, we would not have witnessed the rate wars and other destructive battles for the air freight business which have gone on. The passenger carriers would not have been permitted to fight the *Air Freight* case on the basis that the losses which they had incurred and the losses which they had imposed on the freight carriers were a reason why no new carriers should be certificated.[64]

If the second question, "What are proper rules of the game," can be answered by such action, then there is every reason to believe that the four newly certificated freight carriers will grow and prosper, and that with their growth the air freight industry will enjoy a rapid and efficient advance toward the one billion ton-mile potential which has been predicted for it.

[64] This argument was made with considerable force and no little effect. See, for instance, the dissenting opinion of Member Jones, who relies heavily on freight carrier losses as a reason why they should not be certificated.

THE FREIGHT FORWARDER AND THE DEVELOPMENT OF AIR FREIGHT

JOHN C. EMERY*

FOREWORD

Least understood of all the new elements in the formative air freight business is the air freight forwarder.

To the certificated airlines, he is a pariah, a middleman, a cream-skimmer—to be harassed and fought at every turn and, if possible, stamped out. To the shipper, the air forwarder is a doubtful quantity, with some theoretical promise of usefulness but of only partly proven worth. To the Civil Aeronautics Board, he is a problem child, not to be suppressed exactly but to be handled gingerly and tentatively pending further developments.

To himself, the forwarder is an essential cog in the air freight mechanism; an expert in overcoming the uncertainties of a form of transportation which is still unsure; a coordinator of different kinds of transportation in a field where the air alone is not enough; a salesman who can accelerate sharply the development of the air freight potential; and finally, a laborer fully worthy of his hire.

Somewhere in between these extremes, perhaps, lies the true picture of the air freight forwarder. His future in air freight remains to be proved. It may be inhibited by the opposition of the airlines and the doubt of the CAB. It may be assured or denied by the conclusions of shippers, who have the power of life or death over all carriers. It may be clouded by abuses of the forwarder himself. Or it may prove to be bright with promise and fulfillment for the forwarder and the air freight business of which he is a part.

I

FORWARDING IS A METHOD OF TRANSPORTATION

The railroads are a form of transportation. That is to say, a railroad by itself, with its own tracks and rolling stock, is capable of producing a complete job of transportation from shipper to consignee. So are the airlines a form of transportation. But forwarding is less a form than a method of transportation, in that the forwarder produces completed transportation not by the employment of his own facilities but by making use of the services and facilities of other carriers.

Forwarding was born, in surface transportation, when the railroads' tight control of inland freight transportation was first broken by the motor truck shortly after World War I. Railroad service for less-than-carload shipments of freight had long been lacking in speed and dependability, and was highly vulnerable to the competition of the intercity motor truck. More and more LCL freight was won from

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the rails to the highways, until "The LCL Problem" was one of the most critical facing the rail carriers.

Partly in a defensive effort on the part of railroads to solve this problem, partly in an aggressive effort to evolve a new and better method of moving LCL freight, forwarding companies were organized. Whether railroad-owned or not, their purpose was to coordinate rail and truck transportation, forcing LCL shipments into a limited number of channels between major cities, consolidating these small shipments into full box car loads for long-haul movement by rail, and accomplishing by motor truck the assembly and distribution of the shipments comprising the full carloads.

The service quickly proved popular with LCL shippers. With one pickup call to a forwarder, a shipper could bring one truck to his shipping platform to remove all LCL shipments for all destinations. Instead of puzzling out his own best routes for traffic to diverse destinations, the shipper left this to the forwarder, who not only occasionally but regularly moved LCL freight faster and with less handling and damage than the railroads or truck lines directly.

Furthermore, the shipper usually paid no premium for this superior, coordinated forwarder service. Railroad rates, long since shaken down to the point where differences in the costs of providing different services were reflected in the rate structure, were higher per pound for small LCL shipments than for large, carload shipments. Thus, the rail or truck LCL rate from A to B might be $2.00 per cwt., but the carload rate would be $1.80 per cwt. The forwarder, charging a competitive $2.00 per cwt. to his customers, could consolidate his many small shipments into full carloads and move them from A to B for $1.80 per cwt., leaving 20 cents per cwt. to pay his overhead expenses and earn his profit. With volume, this difference was enough.

In its surface transportation origins, therefore, forwarding proved profitable to forwarders and beneficial to shippers. Nevertheless, forwarders have not enjoyed the unanimous affection of railroads and truck lines. Some of the latter claim that forwarders "skim the cream" of desirable traffic between major LCL freight shipping and receiving points, leaving the remainder to be handled at still higher cost and heavier loss, because of the reduced volume, in rail and truck direct LCL service. The forwarders counter this with the assertion that the railroads and trucks earn so much more from the handling of consolidated forwarder carloads and truck loads as to be better off, over-all, than if the forwarders were not in existence.

This is not the place to carry on that argument. Suffice it to say that surface forwarding exists, that it has had governmental recognition since Congress enacted Part IV of the Interstate Commerce Act in 1943,[1] and that some railroads think well indeed of forwarders because the latter are among their best customers.

II

WHAT AN AIR FREIGHT FORWARDER IS AND DOES

Accurate evaluation of the place of the forwarder in air freight transportation necessarily implies a clear understanding of what a forwarder is and does, and why he does it.

[1] 56 STAT. 284 (1942), 49 U. S. C. §§1001-1022 (1946).

First of all, it should be understood that a forwarder is not a broker or a commission agent. He is a carrier—called an "indirect air carrier" by CAB definition in contrast to the "direct air carrier" definition applied to airlines and operators of aircraft for hire.

Like direct air carriers, the forwarder must define the scope of his operations in respect to areas he proposes to serve and commodities he proposes to carry. Under the Civil Aeronautics Act, he must secure some type of authorization from the CAB before he can engage in operations as a common carrier. Having done so, he must publish his rules and rate tariffs, issue his airwaybills, assume responsibility for the movement of traffic offered to him by shippers, transport it to the proper destination and consignee, take a receipt upon delivery, collect all charges lawfully due, pay valid claims for loss or damage, and finally submit such reports as the CAB may require. In every respect, the forwarder conducts his business as a carrier and in the carrier essentials described he is no different from any other carrier, direct or otherwise.

But there is one significant difference between a forwarder and an airline, and that is that the forwarder does not own or operate the carrier equipment—planes in the case of air carriers, of course—by which the freight from which he derives his income is transported from place to place. The air freight forwarder may or may not own or operate motor vehicles to move traffic to or from airports, but he does not and under law cannot own and operate aircraft.

When an airline takes a consignment of freight from a shipper, it transports the shipment to or toward the billed destination on one of its own aircraft. The cost of air carriage is simply the cost to the airline of operating the plane schedule on which the freight is a part of the total load—and perhaps a small part in relation to passengers, mail, and express. This tends to obscure the true cost to an airline of carrying air freight, and leads to loose rate-making.

When a forwarder takes a consignment of freight from a shipper, on the other hand, he must purchase the air transportation necessary for the movement to or toward destination. He has no plane of his own which he must operate whether there is freight to go or not. He cannot dismiss air transport cost for his freight as a minor detail in relation to other essential costs. He must pay some direct air carrier's tariff rates or he will not move his freight at all, and the charges of direct air carriers are the largest single item in any air forwarder's operating expenses.

This being so, the forwarder naturally does what he can to reduce this major cost item. One measure to accomplish this purpose is so commonly employed that it has become popularly accepted as a universal characteristic of forwarding. That is the consolidation of shipments, by which is meant the taking of traffic from several or many shippers, consolidating as much of it as possible into a single consignment to a single destination or break-bulk point, and turning it into a single airline shipment in connection with which, on the airline airbill, the forwarder or his agents are both shipper and consignee.

This single airline airbill may cover a manifest which includes many forwarder airbills and many kinds of freight from as many different shippers to as many different consignees. But it is the single airline airbill on which the forwarder buys the air transport he requires, and the larger the shipment under ordinary conditions, the less the rate per pound. This consolidation procedure of the forwarder, therefore, has the simple purpose of reducing his costs.

Also it is normally the means of the forwarder's livelihood. In principle, competitively, his charges for transportation of a shipper's traffic must not exceed those of his competitors, including direct carriers, service conditions being equal. Since the forwarder must charge no more than the direct air carrier, yet must pay out of his revenue the direct air carrier's charges for airport-to-airport transportation, he must obviously pay less per pound to move his freight than he collects per pound from his shipper customers—he must, that is, if he is to have anything left for other expenses and profit. Since normally a larger weight of shipment means lower cost per pound, the forwarder consolidates as many shipments as he can.

In addition to this consolidation procedure, there is another characteristic of air freight forwarding, and that is the special emphasis put on ground transportation and its coordination with plane schedules. Paradoxically, in air freight, ground transportation is at least as important as air transportation. Some think it even more important. This is because the airports between which planes fly are commonly remote by miles from the freight shipping platforms of air freight customers. Furthermore, much air freight originates at or is consigned to places which are still off-airline, making a surface haul of perhaps scores of miles, and a transfer from surface to air transportation, essential elements in the air freight transportation.

These surface moves, long or short, do not occur automatically. They must be arranged, and the manner of their arrangement determines whether the performance of air freight service is to be of the sort which attracts, holds, and develops air freight tonnage. Forwarders, most of whom have some background of experience in rail, truck, or express transportation, consider themselves especially qualified to work out effectively this necessary coordination of air and ground transportation. In fact, they believe they can manage it more effectively than the airlines.

Forwarders are unlike direct air carriers in another important respect, and that is their freedom from worry about the return load problem which constantly besets the airlines. The balance of traffic flow in the United States is from east to west and north to south. Full planes can be dispatched by airlines from eastern and northern terminals, but return trips must be relatively full, too, if loss is to be avoided. This characteristic of direct air carrier operation, which influences in every possible way the policies and practices of airlines, is completely lacking in forwarder operation. The forwarder has no planes to fill. If all his traffic goes one way—a situation which would break any direct air carrier—the forwarder is unconcerned.

To summarize, forwarders are like airlines in that both are air carriers, but unlike them in that forwarders operate no planes, seek to consolidate loads, specialize

in ground transportation and its coordination with air schedules, and finally escape scot-free from the return-load compulsion which haunts an airline's existence. The mere recital of these essential differences hints at the somewhat less than cordial relations which exist between airlines and forwarders.

III

WHY THE CERTIFICATED AIRLINES OPPOSE THE FORWARDERS

It has been mentioned earlier that the railroads and truck lines are not all favorably inclined toward forwarders in surface transportation. To say similarly that the certificated airlines are not all favorably inclined toward air freight forwarders would be an extremity in understatement. The certificated airlines' opposition to air forwarders has been thorough, vigorous, bitter, and persistent. And it still goes on.

The several steps in the airlines' campaign, first of forwarder prevention and then of forwarder elimination, will be related shortly. It seems appropriate at this point to examine the basic airline objections to forwarding as a method of air freight transportation. To do so may place in better perspective the specific airline steps in opposition which remain to be related.

At bottom, the certificated airlines are opposed to air freight forwarders and forwarding for reasons which stem directly from post-war conditions in air transportation. The first of these conditions was the advent of that child of war experience and war-surplus equipment, the cargo airline. The second, related to the first, was the need of the airlines for traffic and revenue to support the expanded air transport system which they were encouraged to build up by the optimism engendered in the war years. The third condition, growing in turn out of the first two, was probably no more than a human feeling of uncertainty about the future of the new-born air freight giant and an equally human fear that it might slip from their control to that of others, including forwarders.

The certificated airlines' opposition to their all-cargo competitors has been the natural reaction of those who have and want to keep. This opposition extended quickly to air forwarders because the certificated airlines believed, with reason, that the cargo airlines and the forwarders were allied in their efforts to seize and control the air freight traffic of the nation. This belief was bolstered by the fact that forwarders supported the cargo airlines and the latter supported the forwarders in their respective struggles for Civil Aeronautics Board recognition and certification. Determined as they were to obstruct invasion by the cargo airlines, what was more inevitable than the certificated airlines' equal determination to frustrate that cargo airline henchman, the air freight forwarder?

The certificated airlines were even more determined than they might otherwise have been to throttle the forwarder because they had an oversupply of cargo space on most flights in most directions. This surplus space resulted from overestimates of the post-war market for air transportation. The airlines had to fill this space. They had to develop sales staffs to cultivate freight traffic and provide the other

ground facilities to handle the needed freight tonnage. Most certainly they did not want forwarders to solicit in competition with airline salesmen and turn the resultant tonnage over to the cargo airlines. But almost equally were they opposed to forwarder handling of freight on a consolidation basis, which would hold freight during hours when half-filled planes were departing and dump it on the airlines in large consolidated loads at the peak of the evening mail and express rush hour. The airlines were positive, from what they knew of surface forwarder operating methods, that air forwarders would do this.

Finally, the certificated airlines were simply unsure of themselves and their ability to cope successfully with forwarders who, with the skill of long experience, might earn and control great blocks of tonnage, and with this control might misuse their power to force service and rate concessions from this or that yielding airline. There was some excuse for this apprehension. In surface transportation, forwarders had never been slow to exploit an advantage of this sort.

These, then, were and still are the basic reasons for certificated airline opposition to air freight forwarders. The validity of these reasons is open to question, of course. But these reasons and these fears—for all the reasons are based on fear of competition—represent the foundation stones supporting the whole, ramified airline campaign for the extinction of air freight forwarders.

IV

AIRLINES *v.* FORWARDERS

Forwarder applications to the Civil Aeronautics Board for certificates of convenience and necessity touched off the first concerted certificated airline attack on what they considered their new enemy. Docket 681 *et al.*, when at last it came to trial before CAB Examiner Cox in New York on February 17, 1947, found the airlines en masse, led by the Air Transport Association, in opposition to 78 forwarder applicants, some of them surface forwarders seeking to extend into the air, some new companies with experienced founders and respectable working capital, and some just young men with an idea of making a place for themselves in the new air freight business.

Week after week, the hearings droned on, in New York, Chicago, and Oakland, and finally in Washington. Everywhere the testimony was the same, the forwarders characterizing themselves as the best and surest road to a huge, profitable air freight transportation system, the airlines insisting that forwarders were useless "middlemen" which air freight would be far better off without.

When the last word had been said, the record had attained the breath-taking total of more than 10,000 pages of testimony and exhibits. The Examiner had the staggering task of separating the wheat from this mountainous pile of chaff and writing an appropriate report of findings. It took him months, but in April, 1948, he said, at last, "Let the forwarders operate."

Followed more months of Board consideration and a few days of argument

before the whole Board. Then on September 8, 1948, the decision: By three votes to one, an order under which virtually anyone who wanted to be an air freight forwarder and who was free of the taint of control by a surface carrier, could secure a letter of registration good for up to five years of experimental operation. It was a decision which wholly pleased perhaps only a few forwarders. Certainly it incensed the certificated airlines.

They refused to admit defeat, and filed a petition for review of the Board's decision with the United States Court of Appeals for the Seventh Circuit in Chicago. A stay of Board action under the order, pending such review, was requested and initially granted. On more complete evidence the court later set aside the stay and the matter now pends on petition for review. Briefs are filed or in preparation for filing, and a decision may be expected next year.

These legal steps have not represented the whole course of the certificated airlines in opposition to the forwarders. One retaliatory blow was the virtual elimination of the normal difference in airline rates per pound between large shipments and small ones. Instead of having one charge per pound at a hundred pounds and successively lower ones at 500 pounds, 1,000 pounds, 2,000 pounds, and so on—affording the rate "spread" within which forwarders can consolidate profitably—the airlines generally filed rates which were same per pound at all weights from 100 pounds to 16,000 pounds, and squeezed the forwarders still further by reducing their—the airlines'—100 pound rates to the lowest levels permitted by the Board. The effect of this on some forwarders was fatal.

More recently, to get the best of the forwarders—or perhaps of each other—certain airlines have given special encouragement to the employment by shippers of the airlines' assembly and distribution rules. Under these rules, a shipper can send a number of consignments to or beyond a single destination, for airline break-bulk and delivery or reforwarding; or a consignee can have an airline assemble various consignments from several suppliers in a given city and send them on to him as a single lot shipment. The charge for assembly or distribution is inconsequential and the shipper or consignees gets the benefit of the lowest rate applying on the gross weight of the combined shipments. The providence of these arrangements from the standpoint of airlines, and the legitimacy of certain novel variations on the basic theme which one or two of the airlines have devised, are now under investigation by the Civil Aeronautics Board—at the instance of the Air Freight Forwarder Association.

V

WHAT DOES THE FUTURE HOLD?

In the light of this recital, which has been more concerned with the give and take of litigation than with the more constructive aspects of the air freight business, it may appear fanciful, especially with vital cases still pending, to predict a bright future for the air freight forwarder. Yet that prediction must be made, for this reason: Air freight, for success as a medium of transportation, demands the employment of the forwarder method.

The essential characteristics of the forwarder method are coordination and flexibility. To no form of transportation are these characteristics so vital as air freight.

Coordination of different kinds of transportation is something which, for some reason, direct carriers of any sort—rail, water, road, or air—find themselves incapable of embracing with the whole-hearted enthusiasm which is the key to full effectiveness. Whenever a direct carrier of any type attempts coordination with one of another type, it does so gingerly, reluctantly, and piece-meal, insuring failure.

Yet coordination of air and surface transportation is an inescapable prerequisite to air freight. In air freight, the air alone is not enough in serving even airport cities, to say nothing of thousands of non-airport sources of freight traffic. A prior and subsequent truck or rail haul is inevitable in the movement of virtually every air freight shipment, and coordination is paramount if service is to be satisfactory—if speed on the ground is to match speed in the air.

Flexibility is second in importance only to coordination. Flexibility means prompt diversion to another route when one is filled or closed. Flexibility means that a load backlog, or equipment shortage or failure, or bad weather, tying up one airline or route will not ground the freight awaiting transportation. Flexibility in operation will move that freight on another airline or via an open route, and give the shippers the dependability as well as the speed to which they are entitled.

Forwarders and the forwarder method are supreme in these two essentials of coordination and flexibility. To forwarders alone are coordination and flexibility not only altruistically desirable but selfishly necessary. They improve forwarder service and reduce forwarder costs. Since they are essential to air freight service of the highest quality, the place in air freight of their prime exponents is assured.

No doubt contention and litigation will go on. No doubt there will be further lack of team-work between scheduled airlines, cargo airlines, and forwarders. This is unfortunate, too, because all have much more to gain from working, than they have from fighting, with each other. But eventually peace or at least an armed truce will come, and then air freight will hit its stride.

AIR FREIGHT AND AIR EXPRESS

PETER W. WILSON*

Air express service is provided the public by Railway Express Agency, Inc.,[1] pursuant to a uniform contract[1a] with the multiple-service certificated airlines filed with and approved[2] by the Civil Aeronautics Board.[3] Air express moves under the tariffs and billing of REA. It, rather than the airline, occupies the relationship of carrier to the shipper. Under the contracts REA solicits business, collects shipping charges, renders pick-up and delivery service, routes the traffic, supervises transfers, does the accounting, handles claims, and performs all functions necessary for the conduct of the business other than loading and unloading planes and flying them between airports. The contracts provide for a pooling arrangement. After the deduction from gross revenues of the out-of-pocket expenses of REA, the balance is distributed 87½ per cent to the airlines and 12½ per cent to REA.[4]

Air freight service is rendered by the certificated multiple-service carriers, the newly certificated all-cargo carriers, and certain noncertificated and contract carriers under their own individual tariffs and billing. It is conducted independently of REA. Air freight is essentially a post-war development. It received its principal impetus from returned veterans who with surplus military aircraft launched the first serious effort to attract volume traffic to the air. American Airlines filed, on September 14, 1944,[5] the first tariff for the carriage of air freight since the enactment of the Civil Aeronautics Act of 1938.[6] It seems doubtful that the multiple-service carriers would have spent much of their energies in that direction had it not been for the advent of the noncertificated cargo carriers. Certainly, little progress was evident until their competitive influence was felt.

Air freight in terms of ton-miles carried has made tremendous strides in a relatively short time.[7] Measured in terms of financial returns to the carriers much re-

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[1] Hereinafter referred to as REA.

[1a] REA has a separate agreement with each airline, uniform in all respects with each other agreement except for name of airline, routes embraced, and effective date.

[2] Railway Express Agreements, 4 C. A. B. 157 (1943) separate orders dated March 2, 1943, March 12, 1943, and March 31, 1943.

[3] Hereinafter referred to as the Board.

[4] In 1948 gross air express revenue amounted to $18,503,926.29. Expenses aggregated $6,551,911.05. From the balance remaining for distribution the airlines received $10,458,013.32 and REA $1,494,001.92.

[5] Transcontinental and Western Air, Inc. filed an air freight tariff on June 1, 1945. Other filings soon followed, and at present practically all carriers have filed air freight tariffs with the Board.

[6] 52 STAT. 977 (1938), 49 U. S. C. §401 (1946).

[7] Between August 1945 and October 1946 the monthly volume of scheduled air freight rose from 211,608 to 2,054,467 ton-miles. In 1947 the ton-miles of freight carried by both certificated and noncertificated carriers totaled 84,170,583. In 1948 it reached a total of 115,962,035 ton-miles.

mains to be done.[8] Air freight rates have been and, it would seem, are still far from being compensatory.[9] In the *Air Freight Rate Investigation*[10] the Board established minimum rates to halt a rate war raging between the multiple-service airlines and the noncertificated cargo carriers. Airline management is now becoming alerted to the realities of destructive rate competition. The *Class Rate Investigation*[11] recently inaugurated by the Board may result in closing out the "bargain sales" presently available to the shipping public.[12] It will, in any event, mark the second step in the erection of a more realistic air property rate structure.

Analysis of air freight and air express problems requires preliminary explanation of the status of REA in air and other forms of transportation. REA has been engaged in the carriage of property by air as an indirect carrier for over twenty years. It is also a common carrier express company subject to the provisions of the Interstate Commerce Act.[13] It utilizes practically all forms of transportation in providing a coordinated national transportation system for the carriage of property by air, rail, truck, and, in some instances, by steamboat. It neither owns nor operates aircraft or other intercity conveyances except motor vehicles. It does not transport passengers.

[8] Of the fourteen applicants in the *Air Freight Case* five had become bankrupt by the fall of 1948 and three others had ceased operations. Of the survivors all showed an unbroken record of financial losses.

[9] The Report to Stockholders on the Annual Meeting of United Air Lines, Inc., April 12, 1949, contained the following statement:

> "As to the development of air freight . . . every pound of freight we carry on United Air Lines in an all-cargo plane has paid for the gas, oil and pilot pay. It has not produced for you as stockholders one cent of added cash and far from a profit.
>
> "We are carrying freight for about 17 cents a ton-mile. I wanted to make sure in our annual report that this was emphasized, because I observe publicity releases in newspapers that air cargo has increased 700 per cent. It would be natural for you to assume that such an increase would benefit you as a stockholder. I want to make it clear that now and for some time in the future, until rates are increased, you should pay no attention to reports on cargo increases. We are going through a highly competitive era with certain cargo operators. We are trying to do our best to compete and not lose cash. Let me just leave one thought with those who may be excited about air cargo. Cargo has a place in air transportation at much higher rates than we now are charging and probably commodities of great intrinsic value or high emergency value will move that way, but we are whistling in the dark when we say we can do it for 17 cents."

[10] 9 C. A. B. 340 (1948). This involved a general investigation by the Board of air freight rates, as a result of which an order was issued establishing minimum rates for general commodities at 16 cents a ton-mile for the first 1,000 ton-miles in any one shipment and 13 cents a ton-mile thereafter.

[11] Docket No. 3665, Order Serial No. E-2486, February 21, 1949.

[12] In an address before The Association of the Bar of the City of New York on March 23, 1949, Hon. Joseph J. O'Connell, Jr., Chairman of the Civil Aeronautics Board, stated:

> "With respect to the freight rate investigation, our objective is to try to establish a pattern of rates in this youngest branch of air transportation which will permit the maximum development of the market and at the same time provide fair compensation for the carriers. There is a growing volume of evidence that this cannot be successfully done under the present tariff structure pieced out here and there by commodity and so-called back-haul rates. The Board is not wedded to the idea of a class rate structure. On the other hand, I, at least, am wedded to the idea that the freight business should be entirely self-supporting to the end that it may decrease and not increase the level of subsidy required."

The following appears in the dissenting opinion of Member Jones in the *Air Freight Case:*

> "Such rates (13 to 16 cents per ton-mile) have been specifically recognized by the Board as being uneconomic, and every effort has been and is being made to insure that actual levels will be held at some point substantially above the legal minimum."

[13] 54 STAT. 899 (1940), 49 U. S. C. §1 (1946).

Following the enactment of the Civil Aeronautics Act it applied to the Board (Authority)[14] for a "grandfather" certificate of public convenience and necessity under Section 401(e) of the Act. The Board held that it was engaged in the business of transporting property by air as a common carrier and was included in the definition of "air carrier" as set forth in Section 1(2) of the Act.[15] The Board concluded, however, that REA's air operations were not such as to require a certificate and relieved it temporarily from the requirements of Section 401(a) to the extent necessary to enable it, without obtaining a certificate, to engage in the operations conducted by it with respect to the transportation of property by air pursuant to the contracts it had with the airlines. This exemption was subsequently amended in respects not here material.[16] In the *Air Freight Forwarder Case*[17] the Board continued in effect this exemption, directed the negotiation of a revised air express agreement embodying certain suggestions of the Board,[18] and deferred final action on its applications to engage in air freight operations and to act as an air freight forwarder until the completion of the directed contract negotiations.[19]

In approaching a discussion of air freight and air express it is pertinent to point out that until the filing of American's air freight tariff the carriage of property by air had been limited to the service provided by REA. Air express by contract definition included all property other than passenger's baggage and mail. The Civil Aeronautics Act makes no distinction between, nor in fact any reference to, air express and air freight. Neither term is found in the Act. References are to "property" only.[20] The certificates of public convenience and necessity issued to the multiple-service airlines authorize the engagement "in air transportation with respect to persons, property and mail." The certificates recently issued to certain all-cargo carriers also authorize the engagement in air transportation with respect to property. The original and amended exemption issued to REA authorized the transportation of property. The authority now enjoyed by the air freight forwarders is with reference to the transportation of property.

What then is the distinction between air freight and air express? To paraphrase

[14] Title changed from Civil Aeronautics Authority to Civil Aeronautics Board by Presidential Reorganization Plan No. IV in 1940.

[15] Railway Express Agency, Inc., Grandfather Certificate Case, 2 C. A. B. 531 (1941).

[16] Order Serial No. 5149, September 3, 1946.

[17] Docket No. 681, *et al.*, decided September 8, 1948.

[18] The Board suggested that the carriers make a charge against REA for carrying air express which would cover their costs and insure them a reasonable margin of security. Also that the tariff rates to be charged the public for air express should be determined and filed by REA. Air express rates are now fixed by the airlines. See note 30, *infra.*

[19] The Board stated: "However, since successful operation of the services of REA which we have found to be in the public interest is dependent upon the negotiation of a satisfactory revised air express agreement pursuant to the negotiations we have directed, we will, as heretofore pointed out, defer final action on REA'S request to handle air freight and act as an air freight forwarder." The Board's decision in the *Air Freight Forwarder Case* is now on review before the United States Court of Appeals for the Seventh Circuit, American Airlines, Inc., *et al.* v. Civil Aeronautics Board, No. 9739. The petitioners contend inter alia that the Board exceeded its statutory power in directing that REA negotiate with the airlines new air express agreements containing specific provisions prescribed by the Board.

[20] See Sections 1(20), (21), 404(a), (b), 1002(e), and 1107(j).

one authority, air freight is air express at below cost rates.[21] The necessity, or rather the occasion, to separate the air transportation of property into classifications apparently not intended by the framers of the Act did not arise until the *Air Freight Case*.[22] In that case some of the applicants urged that the authorizations issued in the various "grandfather" cases used the term "property"; and that the record of the certificated airlines showed carriage of but baggage and express, and thus their authority was limited to those activities. The Board disposed of the argument as follows:

> The term "property" used in certificates of public convenience and necessity is broad and general in scope. It includes the right to carry freight. In one of the earliest cases on "grandfather" certificates[23] a carrier requested a provision in its certificate that would construe the authorization to carry persons, property, and mail to include the right to carry all classes of traffic capable of being carried by aircraft. This Board said that: "The terms 'persons,' 'property,' and 'mail' are broad enough to include all classes of traffic which may be carried by airplane."
>
> Accordingly, we hold as a matter of law, that any carrier authorized by its certificate to carry property is thereby authorized to carry any kind of property including baggage, express, and freight.

This language appears in both the tentative[24] and final decisions in that case. Yet, in the final decision, the Board, although authorizing the carriers it certificated to engage in air transportation with respect to "property," specifically prohibited them from carrying "property" shipped by REA.

Such law as there is to be found on the subject of the legal distinction between air freight and air express is contained in the decisions of the Board in the *Air Freight Case* and the *Air Freight Forwarder Case*. In its decision in the former case the Board related that several of the applicants had challenged the authority of the certificated airlines to transport freight. Then follows this significant footnote.

> "Freight" is here distinguished as property moved in equipment devoted entirely to property; "express" is considered to be property transported in equipment scheduled primarily for passenger transportation.

It is not clear whether this was the Board's conception of the difference between the two services or a summarization by it of the contention of the advocates of the theory referred to above. In either case the distinction lacks merit. However valid such a distinction may be in surface transportation, it has no application in air transportation. Express is that type of property which traditionally has used the fastest

[21] Wayne W. Parrish, Editor, *American Aviation*, editorial of January 15, 1949, reads in part:
"In clearer perspective, too, is the composition of air cargo or air freight. Actually it is air express—the same type of shipments that have been transported by air for 15 or 20 years. The one big difference is a far greater volume. No really new field of air cargo has been developed since the war in term of types of shipments. Lower rates made possible by a combination of more efficient airplanes, plus an apparent willingness to operate at below cost, made available a larger volume of the same general type of what comprises the average express shipment."

[22] Dockets Nos. 810 *et al.* and 730 *et al.*, decided July 29, 1949.

[23] American Air, Grandfather Certificate, 1 C. A. B. 105 (1939).

[24] Adopted April 25, 1949, E-2759.

means of transportation. In surface transportation the passenger vehicle ordinarily furnishes the swiftest mode of carriage. That does not follow in air transportation. A cargo plane which makes no intermediate stops or but a few such stops can traverse the same distance in the same or better time than a passenger plane making frequent stops en route to receive or discharge passengers and mail. Even transcontinental cargo planes can accomplish the same result in so far as delivery to consignees is concerned. Additionally, their departure time which is usually after the close of the business day is almost always better suited to shippers' requirements.

In the *Air Freight Forwarder Case*, which involved the applications of REA and some seventy-eight forwarder applicants to engage indirectly in the air transportation of property, the Board discussed air express at length. It endeavored to distinguish it from air freight. The net result was a conclusion that: "The difference between air express and air freight lies principally in the ground and accessorial services provided and in the amount of the rates charged shippers for the respective services." It is interesting to note that the distinction thus made, other than the rate differential, relates not to the air phase of the service but to the ground handling aspects. The Board could find no real difference between the air service afforded express and the air service given freight. It found in fact that: "Air freight frequently moves on the same planes with air express and the airport to airport transit time is often the same." The Board discussed at length the various ground service incidents of air express service, such as substituted surface transportation in cases of flight interruptions, the provision of special pick-up and delivery service, and other expedited features of the service, all of which were concerned with the ground service performed by REA prior and subsequent to the intercity air movement. It pointed out that:

> There is not as much difference in the speeds at which different types of planes operate, point to point, as there is between the speeds of freight and express trains but there is an extremely high ratio of time that air express is in a ground status as compared to the time that it is actually in air.

It does not appear from the record in that case, nor is it a fact, that air freight is in a ground status to any lesser extent than air express. The Board acknowledged that:

> It is true that air express cannot be distinguished from air freight by size or content of package, that air express is not necessarily and exclusively carried in passenger plane service while air freight moves only in slower all-cargo planes, that sometimes the time in transit of air freight equals that of air express, and that, so far as the carrier is concerned, it is sometimes difficult to determine what cargo should go as air express and what as air freight.

In denying REA air freight authority, the Board stated that an element of competition would always exist between air freight and air express, and that the competitive benefits resulting therefrom would best be preserved if the efforts of the parties dealing in each of these services were not divided, and if the functions and facilities

for dealing in or with both were not commingled in one agency. The multiple-service carriers are permitted to handle both air express and air freight in the same planes and with the same facilities. The Board has yet to find any vice in their rendition of both coach and de luxe passenger service.[25] Specialization in but one phase of air transportation has been given compulsory virtue only in the cases of REA and the certificated cargo carriers. With respect to the successful applicants in the *Air Freight Forwarder Case* other than REA, no separation or limitation of activities was imposed. They are free to conduct conventional freight forwarder service and also to provide expedited service of the same character as that rendered by REA in air express. At least one of the successful forwarder applicants is now rendering a service comparable to air express at rates higher than those charged for air express.[26]

The Board appreciates that both air express and air freight are carried in the same equipment and that there is relatively little difference in the air transit time of the two services. It justifies its position in this manner:

> Pursuant to our decision here, the only legal distinction that will exist between air express and air freight will be that air express will move under the terms specified by the air express agreements and will have space priority over air freight.

It will be noted that nothing is said as to the medium of carriage and that no pretense is made that the distinction stated is one presently existing. In both the *Air Freight Forwarder Case* and the *Air Freight Rate Case* exhibits[27] were introduced and testimony[28] were adduced that not only was air express not given priority over air freight but that in practice parity, and sometimes priority, was in many instances given to air freight by the multiple-service carriers. The Examiner in the *Air Freight Forwarder Case* reported that air express is "ordinarily" given loading preference.[29]

Prior to the filing of American Airlines' air freight tariff on October 1, 1944, no distinction existed between air express and air freight. All air cargo was carried as air express regardless of weight or size of shipment or length of haul. The air express agreements pursuant to which the multiple-service airlines and REA conduct the business of transporting property by air provide for the engagement by the parties "in operating an air express transportation business." The term "Express Business" as used therein is defined as being "all traffic of whatsoever nature designated by the shipper for carriage by air." The traffic handled under the air express

[25] Northwest Airlines now proposes to operate a third type of passenger service at fares between those charged on Stratocruisers and those of coach service. New York Times, August 21, 1949, p. 58, col. 2. The Board, on September 27, 1949, suspended and ordered an investigation of the tariffs covering this three-level fare structure.

[26] The so-called "blue-ribbon" service of Emery Air Freight Corporation.

[27] REA Exs. Z-19 and Oakland No. IV in Docket No. 681 *et al.* and REA Exhibit No. 37 in Docket No. 1705 *et al.*

[28] Testimony of witnesses Cummings and Lickteig in Docket No. 681 *et al.* Tr. 2649 and 2650 in Docket No. 1705 *et al.*

[29] Report of J. Earl Cox, Examiner, April 21, 1948.

agreements has been essentially a small package business. This has been the result of rates rather than any limitation of the service itself. Planeload shipments, shipments weighing many thousands of pounds, livestock, and shipments of the type now moving in air freight have moved and still move by air express. Had not the airlines insisted upon the maintenance of high express rates[30] the volume of air express and the average weight of air express shipments would undoubtedly have been increased.

Only one type of property service has been conducted under the air express agreements. The term "air express" was chosen as its trade designation. It seems to have been a happier choice than "air freight" which carries with it the implication of slowness or, at least, deferment to some superior service. The parties contemplated, however, the possibility that at some future time a slower or secondary service might be established. They provided in their agreement that: .

It is contemplated that the Air Company and all air companies having similar agreements with the Express Company may establish various types of air express service based upon the time consumed in the transportation of express matter, such as expedited air express, freight or deferred express and other services which will permit the shipper to choose a particular type in accordance with his needs. The Express Company agrees that in exerting itself in all proper ways to make said business satisfactory, it will promote the sale of each and every type of service so adopted by the Air Company or the other air companies having similar agreements with the Express Company.

No utilization of this provision was made until April of 1946. Following the inauguration of air freight service by American Airlines and a number of other lines, Northwest Airlines and REA entered into an agreement, dated April 12, 1946, providing for the operation of an air freight business which, according to its terms, was to be a lower cost service subject to deferment to the carriage of mail, passengers, and air express. Especially significant is the fact that the parties adopted deferment of freight to express as the distinguishing characteristic of the service, appreciating, it would appear, the necessity for such a difference because of the wide variance in rates.[31] The Board disapproved the agreement[32] on the ground that it violated the terms of REA's exemption orders. It ruled that they limited REA to operations conducted pursuant to the air express agreements. The Board in its order of disapproval did not discuss the characteristics of air freight and air express. It also failed to comment on the contention of the parties to the air freight agreement that it merely implemented the "contemplation" clause of the air express agreements quoted above.[33]

[30] Under the Air Express Agreement the airlines fix the air express rates. The record in the *Air Freight Forwarder Case* indicates that they have resisted effort by REA to reduce rates.

[31] The rates were to be about 30 cents per ton-mile as contrasted with the air express rate of approximately 61 cents per ton-mile.

[32] Orders Serial Number E-1165, January 28, 1948.

[33] The Board found that:

"1. Railway Express is authorized to engage in air transportation pursuant to the terms of an exemption order dated March 13, 1941 (Serial No. 941) as amended on September 3, 1946 (Serial No. 5149) which permits operations pursuant to certain air express contracts, approved by

In the *Air Freight Forwarder Case* the Board has outlined what it conceives will be the legal distinction between air freight and air express if its direction to negotiate a revised air express agreement is successfully carried out. The distinction will be priority of carriage for air express. That distinction does not exist now in all cases. If there is to continue to exist a substantial difference between air express and air freight rates,[34] priority should be mandatory. Serious questions of discrimination otherwise may arise.[35]

The decisions referred to herein bespeak no unawareness on the part of the Board that in basic essentials there is little, if any, real difference between air freight and air express as far as air carriage is concerned. They bring about a rather extraordinary situation. The effect seems to be that air express is to be property which is handled by REA. All other property is to be air freight. Expedited ground handling of the latter apparently will not alter its status. It can be assumed that with improved ground handling on the part of the direct air carriers and the forwarders the difference in the over-all speed from shipper to consignee as between air express and air freight will gradually disappear. That being so, the question arises whether there should be two air property services. Would not the industry make greater progress if there was but one cargo service in which all carriers, both direct and indirect, could participate? The multiple-service carriers at one time expressed an inclination for such an arrangement.[36]

The Board's expressed policy with respect to air property transportation as concerns REA may flow from a conviction on its part that regardless of considerations of public convenience and necessity surface carriers should not be permitted to

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the Board in Docket No. 848, and pursuant to other contracts with certificated air carriers which are identical as to terms, conditions, and type of service to those approved;

"2. The operations proposed under the said agreement constitute air transportation by Railway Express within the meaning of section 401(a) of the Act and are not pursuant to the air express contracts approved by the Board, or identical with such contracts as to terms, conditions, and type of service;

"3. The aforesaid agreement between Railway Express and Northwest, providing for the operation of an air freight business, violates the terms of said exemption orders, and is therefore in violation of section 401(a) of the Act and should be disapproved under section 412(b) of the Act. . . ."

[34] The air express rate per 100 pounds from New York to San Francisco is $73.68. The air freight rate is $28.10. From New York to Chicago the rate per 100 pounds for air express is $21.49 as contrasted with a rate of $10.35 for air freight. These rates include pick-up and delivery charges. REA Tariff C. A. B. 70. Air Freight Rates, Freight Tariffs, Agent Johnson, C. A. B. No. 3.

[35] Differences in rates are not discriminatory when based upon differences in service, circumstances, and competitive conditions. See ROBERTS, FEDERAL LIABILITIES OF CARRIERS 454 (2d ed. 1929); Barringer and Co. v. United States, 319 U. S. 1 (1942); I. C. C. v. Chicago G. W. Ry. *et al.*, 209 U. S. 108 (1907). Discrimination must ordinarily be by the same carrier or carriers. See Central R. R. of New Jersey v. United States, 257 U. S. 247 (1921). The joint nature of the air express arrangement, with the reservation of power to the multiple-service airlines contained in the Air Express Agreement to establish air express rates (see note 30, *supra*) while also controlling rates for competitive air freight might, however, render the airlines vulnerable to a charge of discrimination.

[36] "The certificated carriers contend that the differences between air freight and air express are not important and one of the duties assigned by them to ACI (Air Cargo, Inc.) is to determine when the present tariff distinction between air express and air freight can be dropped and the two services merged into a single air cargo service to be rendered under a single tariff." *Air Freight Forwarder Case*, opinion, *supra* note 17, at 30.

engage in air transportation to any greater extent than is necessary pursuant to the Act and decisions thereunder.[37] Its actions are otherwise difficult of explanation unless motivated by a desire to be "all things to all men." Both the *Air Freight* and *Air Freight Forwarder Cases* involve a striking series of compromises on the part of the Board. In both cases the multiple-service carriers opposed the authorization of operating authority to any of the applicants. The Examiners in the *Air Freight Case* recommend the certification of six of the applicants.[38] In its tentative decision the Board cut the number down to four.[39] In its tentative decision the successful applicants were permitted to handle air express. In the final decision this privilege was denied them. In the *Air Freight Forwarder Case* only part of the authority sought by REA was granted. It was given the privilege of engaging in air express operations with "certificated" carriers. Part of this authority was then negated by the prohibition contained in the *Air Freight Case* against the handling by certificated cargo carriers of air express. The forwarder applicants received the authority sought. However, railroad-owned applicants, other than REA, were denied operating rights. Thus, practically all parties received something. Few came away empty handed. Some received all that was asked. The opposition of the multiple-service carriers was partially successful.

In the *Air Freight Case* the Board spoke of its entrustment by the Congress with a "major promotional and development responsibility," in excusing what it intimated was lacking in the case in the way of factual proof of public convenience and necessity. It said:

> Our decision must also take into account and give appropriate weight to broad considerations of future welfare related to the development of a new type of air commerce which until a comparatively recent time has received little attention.

In the *Air Freight Forwarder Case* it said of REA that:

> Its widespread organization and extensive facilities enable it to serve the individual shipper at every point in the United States, regardless of isolation. Its specialized truck service makes every plane flight accessible. Between airport and city it operates at a much higher degree of frequency than is afforded by the air freight services of the direct carriers. Its services in pick-up and delivery are not limited to business days or business hours but extend to every hour of every day, Sunday and holidays included. In case of delay in the scheduled flights of a carrier it takes advantage of the services of any other air carrier operating between the same points. In case of flight interruption it transships

[37] The Board found that: "The relationship between REA and the railroads does not raise any issue under section 408 of the Act because REA was wholly owned and controlled by the railroads prior to the adoption of the Civil Aeronautics Act, and the extent of that ownership and control has not been extended or modified since that date. In the Railroad Control of Northeast Airlines Case, 4 C. A. B. 379 (1943), we stated that we did not believe 'that Congress intended us to exercise jurisdiction over a control relationship created prior to the effective date of the Civil Aeronautics Act and existing unchanged from that date forward.' Until some change in the ownership and control relationship takes place, no issue under section 408 will be raised by that relationship."

[38] Airnews, Inc., California Eastern Airways, Inc., Slick Airways, Inc., The Flying Tiger Line, Inc., U. S. Airlines, Inc., and Willis Air Service, Inc.

[39] Airnews, Inc., Slick Airways, Inc., The Flying Tiger Line, Inc., and U. S. Airlines, Inc.

cargo on other air flights or on the fastest possible surface carrier, and where supplemental surface carriage is necessary in order for air express to reach destination shipments are often moved by trains or trucking vehicles that ordinarily do not carry surface express or cargo of any sort.

Conscientious exercise of its duty to promote and develop would seem to have dictated a full utilization by the Board of the facilities and services of REA in air property transportation.

Complete realization of the potentialities of air property transportation will be difficult of attainment under the conditions with which the Board has encompassed it. A reappraisal of the situation by the Board or by Congress would seem to be indicated.

THE IMPACT OF AIR FREIGHT ON SURFACE TRANSPORTATION

ROBERT S. HENRY*

The commercial movement of freight by air (as distinguished from the carriage of mail, baggage, and air express) is in general a development of the postwar period.[1] American Air Lines filed with the Civil Aeronautics Board on October 15, 1944, the first air freight tariff.[2] It was not until 1946 that the Civil Aeronautics Board (hereafter abbreviated to CAB) required the volume of air freight handled to be separately shown in reports to the Board.

Competition between certificated airlines and non-scheduled all-freight carriers led for a time to widespread rate cutting, and on October 2, 1947, to a CAB order for an investigation (*Air Freight Rate Investigation*) of the tariffs of the respective groups.[3] Soon after, on October 24, 1947, the CAB suspended commodity tariffs of the certificated carriers,[4] and subsequently suspended any additional competitive rates below the level in effect at that date.[5]

As an outcome of its investigation in this case, the CAB made a finding that the contemporary rates for the transportation of air freight were not compensatory for either current costs or costs reasonably attainable, and it issued an order[6] prescribing minimum rates of sixteen cents for the first 1,000 ton-miles (one ton moved one mile) of any one shipment and thirteen cents per ton-mile thereafter. Exceptions to these minima would be considered by the CAB, said the order, for developmental rates to promote better directional balance of traffic and to correct inequities or disparities in the rate structure. The CAB also expressed the hope that air freight operators would establish their rate structure on a level above the floor thus set.[7]

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[1] Civil Aeronautics Board decision of July 29, 1949, E-3085, *Air Freight Case*. Dockets Nos. 810 and 730, *et al.*, p. 6.

[2] Torgerson, *History of Air Freight Tariffs*, 15 J. AIR L. AND COM. 47 (1948).

[3] Motions of Air Freight Forwarder Association, *et al.* (Orders serial Nos. E-852, E-853).

[4] Order serial No. E-916.

[5] CAB decision in *Air Freight Investigation*, E-1415, Docket No. 1705 *et al.*, April 21, 1948, p. 4.

[6] Order serial No. E-1415, April 21, 1948.

[7] CAB decision in *Air Freight Rate Investigation*, *supra* note 5, at 22.

I

VOLUME OF AIR FREIGHT

Ton-mile figures on the movement of air freight are available for three years, as follows:[8]

TOTAL FREIGHT TON-MILES

16 CERTIFICATED CARRIERS AND 9 NON-CERTIFICATED CARRIERS, 1946-1948

Year	Certificated Carriers	Non-Certificated Carriers	Total
1946	18,685,792	25,183,610	43,869,402
1947	38,870,698	47,409,062	86,279,760
1948	70,437,811	48,115,218	118,553,029

The relative magnitude of these movements, as compared with ton-mileages for surface transportation in these same years, is shown below:[9]

TOTAL COMMERCIAL INTERCITY FREIGHT TRAFFIC, BILLIONS OF TON-MILES

Year	Rail	Other Surface Carriers	Air
1946	602	272	.04
1947	664	319	.09
1948	648	358	.12

From the tabulations just preceding, two facts are evident. The first is that commercial air freight developed quite rapidly during the three years 1946-1948, with an increase during the period of 170 per cent. The second fact is that the impact of air freight on surface transportation of freight in general, as yet, is negligible. An air freight movement of 118 million ton-miles is an imperceptible fraction of a total intercity movement of surface freight exceeding 1,000 billion ton-miles. Its principal impact on surface transportation up to the present has related to the movement of railway express, which usually is considered as an adjunct to passenger transportation.

II

FUTURE OF AIR FREIGHT

However, the present situation does not necessarily reflect the future. It is appropriate, then, to examine what may be the prospects in respect to the future impact of air freight on surface transportation. Toward this end, there are two approaches. One is to examine past predictions on the subject and the extent of their fulfillment. The other is to analyze the characteristics of air freight and endeavor to evaluate its future in the light of this analysis.

[8] Statement of Joseph J. O'Connell, Jr., Chairman, Civil Aeronautics Board, in *Hearings before the Senate Committee on Interstate and Foreign Commerce, Pursuant to S. Res. 50*, 81st Cong., 1st Sess. 90, App. 10 (1949).

[9] Compiled by Bureau of Railway Economics, Association of American Railroads, from official reports of Interstate Commerce Commission, Public Roads Administration; Chief of Engineers, United States Army; CAB, and others.

There were introduced in the *Air Freight Case* various estimates of domestic air freight traffic potentials at assumed rates varying from six to twenty cents per ton-mile. These estimates are tabulated below:[10]

Source	Rate (Cents per ton-mile)	Ton-Miles, in Millions 1946	1947	1948	1950
Edward P. Warner	6				2,000
Slick Airways	9				5,000
Edward P. Warner	10				300
California Eastern	12				5,600
Slick Airways	12.5		1,200		
Curtiss-Wright	14	298		401	518
Douglas Aircraft	15				3,900
American Air Express	15			500	
Curtiss-Wright	20	146		196	253
Edward P. Warner	20				60

Commenting on these estimates, CAB member Harold A. Jones, dissenting, said:[11]

> . . . the examiners were, perhaps understandably, somewhat dazzled by the bright picture of the future of air cargo submitted by the applicants. They discussed [various estimates] and then concluded, more conservatively, that at the reasonably attainable rate of 16 cents, a sound estimate would be one billion ton-miles per year.
>
> Since the hearing two years have elapsed. During practically all of this period conditions for the movement of air cargo were particularly favorable and for most of the period the applicants herein were authorized to operate as scheduled common carriers. There was an unsatisfied demand for high-cost merchandise and items for which speed of transportation is particularly important—the principal sources of air freight—rail transportation was slow and somewhat overloaded, and surface freight and express rates were rising. Yet in spite of all these favorable factors, only about 86 million ton-miles of cargo was generated in 1947 and approximately 118 million in 1948, by all domestic carriers. This was at an average rate of 12.72 cents in 1947, and 12.68 cents in 1948, and at a loss to all cargo carriers of very large sums of money. . . .

A basic fact in any consideration of air freight cost is that air transport is inherently an expensive method of transportation. This situation was well stated by Robert Ramspeck, Executive Vice-President of the Air Transport Association:[12]

> . . . The airplane has to physically lift everything which produces revenue while its competition has only to pull. The radical difference in basic costs of these two functions is axiomatic. Personnelwise, for example, it is estimated that it takes 2,626 employees to produce 100,000,000 ton-miles of air transportation while the railroads can produce this amount of transportation with only 72 employees.

According to an all-freight airline operator, his costs per ton-mile were 14.24 cents in 1947 and 16.39 cents in 1948. The same operator estimated costs of the certificated airlines at from 36 to 44 cents per ton-mile.[13] A spokesman for the certificated air-

[10] CAB decision of July 29, 1949, *Air Freight Case*, *supra* note 1, at 12.
[11] *Id.* at 21.
[12] Address before Atlanta Freight Bureau, Atlanta, Ga., Feb. 18, 1949.
[13] Statement of Earl Slick, President of Slick Airways, in *Hearings*, *supra* note 8, at 13.

lines stated that the domestic trunklines had "reduced their costs per available ton-mile from 32.15 cents in 1946 to 30.8 cents in 1947, and to 30.15 cents in 1948."[14] It should be noted that the latter are costs per *available* ton-mile, meaning what the planes could have handled, and not the smaller traffic they did handle.

CAB member Jones stated in his dissent in the *Air Freight Case* that the rates charged for air freight are below actual costs, so that air freight has been handled "at a loss to all cargo carriers of very large sums of money," the actual average rates charged being 12.72 cents in 1947 and 12.68 cents in 1948.[15] For all domestic airmail carriers the average revenue received per ton-mile for carrying freight in the twelve months ended September 30, 1948, was 20.57 cents.[16]

For ready comparison, the average revenue received by the railroads in 1948 per revenue ton-mile of freight service was 1.25 cents. All railroads do not compute their ton-mile revenue for individual commodities, but one typical railroad which does averaged 3.025 cents in 1948 for its hauls of merchandise package freight, the category which most nearly corresponds in character to air freight. Moreover, the rates which produced these levels of rail revenue had to pass the scrutiny of the Interstate Commerce Commission as being compensatory under Section 1 of the Interstate Commerce Act.[17]

The foregoing costs and rates for air freight relate only to the air movement itself. There are, in addition, the further costs paid by the shipper for getting freight to and from the airport. This is no insignificant matter. The average distance of airports from the business districts of cities served is estimated to be about eight miles.[18] At relatively few large cities is the airport less than five miles from downtown. At New York, distances range from about nine miles to LaGuardia up to about seventeen miles to Idlewild International. The distance at Chicago is twelve miles. Willow Run airport is about thirty-two miles from Detroit.[19] The transfer of freight over these distances, beset by city traffic and stop lights, adds a substantial element of cost.

After arrival at the airport, the next cost factor encountered is the transfer of the

[14] Statement of Robert Ramspeck, Executive Vice-President, Air Transport Association, in *Hearings*, *supra* note 8, at 418.

[15] CAB decision in *Air Freight Case*, *supra* note 1, dissent, *id.* at 21.

[16] *Hearings*, *supra* note 8, at 82, App. 3.

[17] 24 STAT. 379 (1887), 49 U. S. C. §1 (1946), and amendments. "Rates which are not . . . compensatory necessarily discriminate in favor of the traffic transported and unduly prejudice other traffic which must make up the loss." American Paper & Pulp Ass'n v. Baltimore & O. R. R., 41 I. C. C. 506, 511 (1916). "Rates may be unreasonable because too low as well as because too high." Interstate Commerce Commission v. Cincinnati, N. O. & T. P. Ry., 167 U. S. 479 (1897), *affirming* 62 Fed. 690, 64 Fed. 981, 76 Fed. 183, 76 Fed. 1007 (C. C. Ohio 1894-1896), *reversing* Freight Bureau, Cincinnati Chamber of Commerce v. Cincinnati, N. O. & T. P. Ry., 6 I. C. C. 195 (1894); Excelsior from St. Paul, Minn., 36 I. C. C. 349 (1915); American Paper & Pulp Ass'n v. Baltimore & O. R. R., 41 I. C. C. 506 (1916). I INTERSTATE COMMERCE ACTS ANNOTATED 389 (Aitchison ed. 1930).

[18] Association of American Railroads (AAR), Railroad Committee for the Study of Transportation (RCST), Subcommittee on Air Transport (SCAT), AIR TRANSPORTATION 49 (1947).

[19] OUT AT THE AIRPORT (American Road Builders' Ass'n, March, 1949). AAR, RCST, SCAT, INITIAL STUDY OF AIR TRANSPORTATION 34 (1944).

freight to the plane and its stowage for flight. This calls for the use of various types of loading methods and devices.[20]

Loading a plane, too, involves problems not met in surface transportation. The weight of plane cargo has to be accurately computed, and the distribution of the load in the plane is also highly important to safety of operation. It has been suggested that, in respect to weighing freight for loading, time could be saved by loading planes on balance scales located in the apron, but the degree of error introduced by wing and air conditions probably would be too great for acceptance of this method.[21] Moreover, this is a continuing problem; each time that some cargo is off-loaded or new shipments taken aboard brings a new problem of weight and balance requiring to be immediately, expertly, and accurately solved.

At the same time, the necessity for proper load distribution requires stowage of cargo according to weight and density characteristics, rather than according to destination, which often entails considerable extra handling when loading and unloading freight.[22] Finally, stability of the load during take-off, flight, and landing requires that cargo be securely anchored; a shift of position could seriously endanger the plane and its occupants. This situation involves the use of various kinds of bins, load stabilizers, and tie-downs. These must be suitable for quick attachment and removal, involving the use of fixtures which the plane design may not always facilitate. In any event, their use involves extra expense, ground time, and cargo handling.

Adding up all these items of expense, the conclusion is inescapable that air freight is inherently bound to be much more costly than surface transportation. It is true that air transport has some characteristics which might at times offset some of these costs. For example, air freight rates are based on airline distances, which usually are less than surface transport distances. To the extent of such differences, the ton-mile cost of air freight is subject to some discount in comparison with surface ton-mile costs.

In some instances, too, packing required for surface transport can be lessened or discarded for air transport. However, beneath this apparently simple statement lie troublesome complications. For example, garments can be shipped by air on racks without packaging—but to get such garments to and from the airport requires trucks as well as planes to be equipped with special racks.[23] Packaging needs incident to handling to and from the airport, on and off the plane, and stowage enroute, have to be considered as well as the actual plane trip. There is also the fact that air freight schedules directly serve only about 400 localities in the country, so that packaging must take into account the need for movement by some other form of transportation to all other destinations. Again, in order for a shipper to avail him-

[20] Scragg, *Mechanical Handling of Air Freight*, 81 TRAFFIC WORLD 489 (1948).
[21] Pack, *Air-Cargo Handling*, Mechanical Engineering, July, 1945, p. 467.
[22] Col. Harold R. Harris, Chief of Staff, Air Transport Command, address before American Society of Mechanical Engineers, New York City, March 12, 1945.
[23] Penzell, *Trucks, Flying and Otherwise*, Distribution Age, October, 1946, pp. 37, 75.

self of such advantages of lessened packaging as the plane may offer, he must either ship all his goods by plane, stock goods packaged differently for surface and for plane transportation, or else make special packages for his air shipments. The complications and costs here involved are obvious.

III

TYPES OF POTENTIAL FREIGHT

On the premise that air freight is bound to be much more costly than surface transportation, what kind of freight can pay these greatly increased transportation costs? What does the buyer of air freight seek that makes him willing to pay such a substantial premium over surface transporation?

By and large, the answer is speed, which is another way of saying "time." Potential air freight logically would be, therefore, commodities in the handling and merchandising of which time is of high importance. Experience shows that this is indeed the case.

A prewar analysis of air express movement—the direct ancestor of air freight—showed that the principal goods then moved by air were newspapers, books, printed matter, and printing materials; parts and supplies; documents and valuables; wearing apparel; motion picture film; phonograph records; and miscellaneous articles. Analysis of postwar air freight traffic shows that the character of the goods has not changed a great deal. Of the major classes of commodities transported by two all-freight air carriers in 1945 and 1946, the principal items were cut flowers; fabrics and apparel; magazines, other printed matter, and printing material; and miscellaneous; with fresh fruits and vegetables amounting to about one-eighth of the total for each of the two carriers.[24]

The failure of air freight to develop new traffic has been conspicuous. Commenting on this fact, CAB member Jones said:[25]

> . . . At the conclusion of the hearing in January, 1947, the record showed that approximately two-thirds of "air cargo" consisted of wearing apparel, cut flowers and industrial parts. . . . Claims were made of a tremendous potential in a great variety of commodities not previously moving by air. . . . The record of experience over the two years since the hearing does not bear out such predictions. Approximately the same relative amounts of the same three commodities are now being carried by the applicants—wearing apparel, cut flowers, and parts—which have been the backbone of property carriage by air since its inception.

Commenting on the air movement of fresh fruit and vegetables, about which there has been much optimism, CAB Member Jones said:[26]

> Various forecasts submitted to the examiners estimated a tremendous future movement of fresh fruits and vegetables. . . . What has experience shown? The two all-cargo carriers operating transcontinentally . . . carried between them between the West Coast and

[24] Drew and Passen, *Air Cargo: A New Force in Marketing*, 14 J. AIR L. AND COM. 11, 17 (1947).
[25] CAB decision of July 29, 1949, E-3085, *Air Freight Case*, Dockets Nos. 810 and 730, dissent, p. 22.
[26] *Id.* at 23.

New York, probably the most promising route for the development of agricultural traffic, during four representative months [in 1947-1948] a grand total of 11 shipments of such products, weighing less than a thousand pounds in the aggregate. The certificated carriers show similar results.

As the cost of air freight may decline, an increase in its traffic volume may be expected. For example, one exhaustive study of air freight possibilities says on this point:[27]

. . . at a rate of 15 cents per ton-mile for the line haul alone, an insignificant amount of produce traffic is likely to be diverted to air. At a rate of 10 cents the volume of traffic in sight is still only negligible. However, at 7 cents per ton-mile . . . definite commercial possibilities begin to appear.

The future prospects of air freight, therefore, depend in large degree upon the margin by which air freight costs may exceed surface costs for freight transportation.

On this point there appears to be at this time no great amount of informed optimism. The most recent and informed official judgment of the extent of the air freight potential was expressed by the CAB in its decision in the *Air Freight Case*. It said there:[28]

It is recognized that air freight, in its present stage at least, is a relatively high cost medium of transportation and the cost, aside from other factors, would act as a deterrent to any appreciable movement of the greater percentage of products now moving in interstate commerce. . . .

On the basis of the facts of record relating to traffic and air freight potential, we conclude that even in the absence of unusual technical advances which would permit substantially lower rates, there is a potential domestic traffic for air freight of not less than one billion ton-miles annually.

This estimate of one billion ton-miles for air freight compares with a total intercity freight movement in 1948 of 648 billion ton-miles by rail and 1,006 billion ton-miles by all forms of intercity surface transportation.[29]

However, this CAB estimate of one billion ton-miles potential has been termed by well-informed sources over-optimistic. For example, CAB Member Jones said:[30]

There are no "facts of record" which I can find to support such an estimate. . . .

. . . It should be noted that the majority rather obviously fails to relate the one billion ton-mile figure to any particular period. For all the opinion indicates, the estimate might be for 50 or 100 years from now. . . .

. . . This [1947 and 1948] tonnage was carried at a rate level which, as the record shows, was uneconomical and which must be substantially increased. Nor do the facts in the record tend to prove any reasonable prospect of advancement in the art in the near future which will reduce costs, thereby making lower rates possible.

[27] SPENCER A. LARSEN, AIR CARGO POTENTIAL IN FRESH FRUITS AND VEGETABLES 2 (1944).
[28] CAB decision of July 29, 1949, *supra* note 25, at 11, 22.
[29] See note 9 *supra*.
[30] CAB decision of July 29, 1949, *Air Freight Case*, *supra* note 25, at 29-33.

The costs which have so far been experienced are little more than the bare costs of operating aircraft. Even these will inevitably increase with the passage of time after certification . . . depreciation expense is considerably below what will be incurred in the future.

All in all, there is nothing whatever in the record to support a conclusion that the applicants' costs will decrease with certification, but rather to the contrary. And in the face of a loss experience of 3 cents per ton-mile, it is completely unrealistic to assume that the level of freight rates will not of necessity increase substantially in the near future.

In exceptions to the tentative decision in the *Air Freight Case*, United Air Lines said projections based on past increases would indicate about 250 million ton-miles in 1953, compared with the Board's estimated potential of one billion ton-miles, or four times as much.[31]

Dr. John H. Frederick, aircargo consultant and for many years an outstanding student of air transport economics, says of the CAB estimate, "Its vision of one billion ton-miles is Jules Verne, if anything."[32]

IV

FULL AIR FREIGHT COSTS UNKNOWN

In his analysis, just cited, CAB member Jones called attention to the fact that air freight thus far has been operated at a loss, and that its unit costs are more likely to increase than to decline. The fact is that no one knows what are the real costs of air transportation. They are higher than the revenues received for the service, but how high they actually are still remains to be ascertained.

Any such cost computation needs to take into account all costs of air transportation, including those items borne by the general taxpayers as well as such costs as are borne directly by the users of the service. Not until the rates of competing carriers fully reflect all costs of the service can an informed decision be made as to which service is the most economical and efficient for a given transportation task. And only in the light of such informed decisions can competition among various forms of transport be on a basis which is fair to the carriers and compatible with the public interest in sound transportation conditions.

Beyond question, carriers handling traffic at rates which do not meet operating costs offer uneconomic and unjust competition with other carriers. It is abundantly evident in the record of the *Air Freight Case*[33] and of other proceedings[34] that present rates for air freight do not meet operating costs. To be specific, Public Counsel in that case pointed out that all the freight carried by the three major noncertificated applicants who had supplied data had been carried at an average loss of 4.23 cents for each ton-mile carried.[35]

[31] United Air Lines Brief, May 18, 1949, p. 12.

[32] Frederick, *Areas for Aircargo*, Distribution Age, July, 1949, pp. 37, 53.

[33] CAB decision of July 29, 1949, *Air Freight Case*, *supra* note 25, at 20, 21; Jones dissent, *id.* at 21, 40 (inter alia).

[34] Statement of Senator Edwin C. Johnson, Chairman, Interstate and Foreign Commerce Committee, in *Hearings*, *supra* note 8; statement of Joseph J. O'Connell, Chairman, Civil Aeronautics Board, *ibid.*

[35] CAB decision of July 29, 1949, *Air Freight Case*, Lee dissent, *supra* note 25, at 2.

In respect to the domestic certificated airlines, it is impossible to be thus specific, because their expenses apply to their joint passenger, mail, and freight operations, of which no segregation for cost accounting purposes is available. However, it is a matter of record that, despite repeated increases in mail pay under Section 406(b) of the Civil Aeronautics Act of 1938, the operating expenses of these lines have exceeded or closely approached the operating revenues after mail pay subsidy, and that postwar losses of the domestic trunk airlines before mail pay had increased as their volume of traffic increased. Illustrative are the following figures for these airlines:[36]

DOMESTIC AIR CARRIERS—ALL "TRUNK LINES"

Calendar Year	Excess of Operating Expenses over Non-Mail Revenue (000)	Mail Pay (000)*	Net Operating Income (000)	Ton-Miles (millions) Revenue Mail	Other than Mail	Total
1946	$25,500	$21,015	D-$ 4,485	32.9	609.5	642.4
1947	44,223	29,457	D- 14,766	32.9	647.3	680.2
1948	46,403	47,427	1,024	37.5	663.1	700.6

* Subject to final adjustment. Includes all payments during the year, including retroactive allowances.

That the rates charged by these airlines for their passenger and freight service as a whole are below operating costs is the obvious inference from these figures.

There can be no doubt that the mail subsidy payments to the certificated airlines afford them a competitive advantage. These payments can be used to defray part of their full cost of operating freight or passenger service, and thus enable such service to be sold at less than would otherwise have to be charged for it, and less than it actually costs.

V

SUBSIDIES OTHER THAN MAIL PAY

What is true of the mail pay subsidy to the certificated airlines, as just stated, is true in corresponding degree of the several other government subsidies from which all air transport operators benefit. These include: (1) construction and maintenance of airports; (2) traffic regulation and control; (3) special weather service for aviation purposes; (4) safety regulations and practices; (5) airman and aircraft licensing and inspection; and (6) maintenance of government promotional authorities.

The sums of money involved in these activities are of such magnitude that they have appreciable effects upon the national budget, upon state and municipal budgets, upon the air transport industry itself, and upon other carriers affected by the activities of air transport.

A. Airport Costs

In regard to construction and maintenance of airports, D. W. Rentzel, Administrator of Civil Aeronautics, testified before the Senate Interstate and Foreign Commerce Committee on April 14, 1949, as follows:[37]

[36] See *Hearings, supra* note 8, App. 2D and 2J, at 75, 79.
[37] See *Hearings, supra* note 8, at 177.

. . . Taxpayers of the United States have an investment of about one and one-half billion dollars in civil airports. Of the larger airports, which were financed by Federal, State, and local appropriations, only a handful are self-supporting even to the extent of returning out-of-pocket operating and maintenance expenses.

Another authoritative statement on this subject appears in a report issued by the House Committee on Interstate and Foreign Commerce as a part of its National Transportation Inquiry, under the title "Public Aid to Air Transportation."[38] This report states that the "estimated net cost to the taxpayers" for operation and maintenance of airports (as of the end of 1945) is $56,187,500 per year. The percentage of use by scheduled air carriers was shown in that report as 20.03 per cent in 1946, and 16.15 per cent in 1947. At the twenty-five leading airports, the proportional use by scheduled air carriers was stated as 33.6 per cent in 1946 and 34.4 per cent in 1947. These allocations are on a basis which takes no account of the size and weight of planes nor of the effect thereof on the length, strength, and cost of the runways needed.

B. Federal Aids to Air Navigation

Appearing before the Senate Committee on Interstate and Foreign Commerce on April 25, 1949, J. Weldon Jones, Assistant Director in Charge of Fiscal Analysis, Bureau of the Budget, testified that expenditures by the Federal Government on the principal programs for promotion and assistance of civil aviation through mail subsidy to the airlines and through the free provision of air navigation facilities and other services in FY-1949 would amount to about $300 million. Of this amount, he said, 40 per cent is for mail pay and is subject to adjustment as the result of further rate revisions still pending. Any such adjustment in mail pay, of course, would be upward. He added that he expected the corresponding figure for FY-1950 to be about $350 million, without allowing for any increase in mail pay.[39]

The House Report referred to above stated (p. 11) that the total cost of maintaining and operating federal aids to navigation (beacons, radio, weather service, control towers, etc.) is computed by the Civil Aeronautics Administration at $39,571,087 per year, "no part of [which] is borne by commercial air transport nor have the air lines . . . invested any money in these facilities." This cost is undoubtedly greater today. Scheduled air carriers utilize these navigation aids in varying proportions up to 80 per cent of the total.

Federal appropriations to the Civil Aeronautics Administration also inure to the benefit of air carriers. The duties of the CAA are not concerned with regulation in the ordinary sense of the word (which devolves upon the CAB), but with promotional and supervisory activities, which are of undoubted benefit to air carriers, but which in the case of surface carriers are performed for the most part at their own expense. Considerable stress was laid upon these promotional functions by the CAB in its decision in the *Air Freight Case*.[40]

[38] H. R. 1612, 80th Cong., 2d Sess. 9, 10 (1948).
[39] See *Hearings*, *supra* note 8, at 324-325, 326-327.
[40] CAB decision of July 29, 1949, *Air Freight Case*, *supra* note 25, at 27 ff.

All of these, and other, kinds of public aid to air navigation are supplied by the government without cost to the users. How much of such cost should properly be regarded as constituting a subsidy to air transport is not now known.

There is hope that the air transport industry at some future date will become self-supporting. To realize the fulfillment of that hope, there must be thorough ascertainment and knowledge of the amounts involved in these subsidies, even if they are stated only as a goal on the way to attainment of self-support. As President W. A. Patterson of United Air Lines said in his testimony before the Senate Interstate and Foreign Commerce Committee:[41]

> With subsidy being identified directly as such, it would serve as an incentive for management to increase its efforts to reduce and eliminate subsidy.

He was then speaking of the subsidy element in mail pay, but his statement would appear to be equally applicable to subsidy in any form.

Until all subsidy is eliminated, the rates of subsidized carriers will not fully reflect all the costs of the service. Until rates do fully reflect all the costs of providing the service, the respective merits of the various types of carriers from the standpoint of efficiency and economy will be obscured, and competition among carriers will remain on a fallacious basis. While such a basis prevails, evaluation of the impact of air transport upon surface transport cannot be accurately made, because the outcome will depend upon government subsidy policies as they may be effective from time to time.

VI

CONCLUSIONS

1. Air freight has been in existence only about three years and has attained a maximum volume of 118 million ton-miles, in 1948. This compares with 648,000 million ton-miles by rail and 1,006,000 million ton-miles by all forms of intercity commercial surface transportation in that year.

2. Air transportation is inherently a costly form of movement, because power must be expended to sustain as well as to move the load. In addition, movement to and from airports—usually at a considerable distance from business districts, through urban traffic—and loading and stowage on the plane are added cost factors. Such factors of higher cost may be partly offset in occasional instances by more direct airline distances and lessened packing requirements for air movement.

3. Air freight competition with surface carriers thus far has been conducted at prices below operating costs—a situation which cannot continue.

4. The costs of air freight movement to date include only those costs directly borne by the carriers—they do not include costs borne by the general public in the form of subsidies of various kinds.

[41] See *Hearings, supra* note 8.

5. Until all the costs of air transport are paid by air carriers—or at least are fully known and recognized for what they are—there can be no conclusive determination of the place of air freight in the transportation picture, on the basis of its relative economy and efficiency.

6. However, failing some invention or discovery, not now foreseen, which will greatly reduce costs of air movement, it seems improbable that on an economic basis air freight can seriously affect the volume of traffic or the rates of surface carriers.

THE DEVELOPMENT OF INTERNATIONAL AIR FREIGHT

RAYMOND A. NORDEN*

Advent of the long-range airplane which could lift a substantial payload presented the first opportunity in more than one hundred years to accelerate the delivery of goods across water barriers. Modern steam freighters carrying the bulk of the world's goods move little faster than the clipper sailing ships of our early American days. The impact of air transportation on international trade has been and will be, therefore, far more profound than it is on the domestic scene where between the wagon train and the airplane we had the railroad and the truck.

International air freight reduces to about one-twentieth the time consumed in spanning the oceans. Speed is, so to speak, the *raison d'être* of air freight; its concomitants are the elements which make shipping of many products by air at higher rates more economical than shipping by ocean freighter at lower rates.

But a caution on speed of itself is necessary at the outset. Ever increasing speed, however desirable in passenger and mail carriage, must not become an obsession in freight. The economic justification for international air freight accrues from a combination of speed, direct flight to destination, and personal attention to the goods carried. From each of these, or a combination, stem the concrete economic gains.

Compression of time in transportation has preoccupied man since the exchange of goods began, because any kind of property in transit is idle, worthless, and profit-consuming. The astute manufacturer, importer, or exporter will always think of distances as time, and not miles.

The logistically minded men of the Air Transport Command had such lessons ground into them by the rough edge of war. Major General William Tunner, of Military Air Transport Command and genius of the Berlin Airlift, recently set forth graphically what is involved in loss by a routine replacement of 1,000 men in the Panama Canal Zone. To carry 1,000 men to Panama by ship and bring 1,000 out, he said, involved a loss of 34,000 man-days. Movement of the same number by airplane cost 4,000 man-days. The General invited his listeners, members of the Commerce and Industry Association of New York, to consider what they could pick up "free" by changing their means of transportation.

Delivery of goods in a day or two instead of weeks means drastic shortening of the profitless transit period, whether the goods be merchandise or machinery; it means eliminating the need for large inventories, hence less capital tie-up; it means less warehousing, faster re-orders, and the opportunity to meet the peak demand. It cuts the risks of encountering exchange fluctuations, and speeds collections.

Direct flight means over-flying of congested ports and bringing inland cities to

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tidewater; elimination of multiple handling and transshipment and the costs therefor; and access to markets hitherto untapped.

Personal handling, plus the very nature of the transportation equipment, which is itself a relatively delicate instrument, means virtual elimination of pilferage and damage from shock, pressure, and moisture, substantially lower insurance, lighter, cheaper crating, and certainty of delivery.

Wider acceptance of international air freight will come with wider knowledge of its economics and with lower rates. Lower rates will come with lower costs. Lower costs will come from growing experience, and with the development of an airplane strictly designed for freight carriage and affording increased payload. Already, the fifty-ton payload airplane is in sight, although still in the proving stage.

I

In this discussion of international air freight, any egocentric element with relation to my company's activities will have to be pardoned as inevitable, because it is the only trans-oceanic airline which is truly devoted to the freight business. It carried 36 per cent of all the tonnage moved in and out of the United States by it and the three certificated North Atlantic carriers in 1948, yet it operated only 4 per cent of all the flights which moved this property.

This writer began studies of air freight potentials and costs in 1937 while engaged in the aviation insurance business, but up to the outbreak of war determined only that (a) costs with current types of aircraft would be too high, and (b) there were no aircraft available anyway.

It would seem that man makes his most progressive strides—at least in the fields of transportation and some sciences—under the drive of war's necessities. The 1914-18 conflict produced a forced growth of automotive transportation; the famous French seventy-fives went into action in 1914 with horses, but came out in 1918 motorized. The result of that war was the trucking industry of the Twenties.

The second war was really a World War, fought in two hemispheres and not even circumscribed by the Arctic and Antartic parallels. Transportation of men and matériel over vast distances, wastes of ocean and desert, and towering peaks, was vital. Again, necessity was the mother of invention, and strategic airlift was born. At its peak of operations, the Air Transport Command alone flew 3,000 aircraft, manned, maintained, and directed by a quarter-million men, and carried 170 million ton miles a month—the equivalent of 2,000 freight cars moving capacity loads from New York to San Francisco. Over the Himalayas, in all kinds of weather, an odd assortment of aircraft lifted daily from India to China, 5,000 tons of trucks and ammunition, bombs and gasoline, howitzers, mules, and road-building machinery.

The men who did these jobs were indicating the possibilities of the third dimension. The Wright brothers gave man wings. The impelling necessities of war gave wings to the hitherto earth-bound weapons of destruction, and indicated what

the air age could be when the firing stopped. For, in the inspired words of Mr. Gill Robb Wilson, aviation pioneer and columnist of the New York Herald-Tribune:

> If this is the Air Age, it is so because the airplane can move the merchandise of civilization and not because it can haul a few people around in a hurry. If this is the Air Age, it is so because air transport can lick the Hump and the Soviet blockade and the gray waters of the North Atlantic and the earthquakes of South America and the isolation of Alaska.

Men who not only flew the airplanes of the ATC and the Naval Air Transport Service but gained intimate knowledge of engineering, maintenance, safe flying procedures, scheduling, traffic, and handling of personnel, were deep into consideration of air freight long before the last shot was fired. The small group, for instance, which conceived and founded my company, met during war service with ATC, discussed the possibilities of the post-war scene, drifted apart under the exigencies of war, corresponded, and then got together after separation from the service. Sitting down together, they found that five men, mostly in their late twenties, had a combined total of affiliation with aviation of more than forty-five years. Two of the group qualified in safety of aircraft operation (one had written and supervised the Flysafe Project for the India-China Division and then adapted it to North Atlantic operations); three had extensive knowledge of aircraft maintenance; two of aviation insurance; and two had experience with commercial scheduled airlines.

Importantly, too, scattered as they had been through the theatres of war, they had intimate knowledge of the capacities and personalities of innumerable pilots, and of operations, traffic and engineering personnel. It was a great pool from which to draw flight and ground people for an air freight venture.

In the ensuing studies, the matter of operational costs was given extreme care. As a result of war experience and post-war calculations, before ever a plane was flown it was as though a period of trial and error had been undergone. Subsequent operation costs, in fact, came within a couple of cents per revenue mile of those estimated more than a year before the first flight was made. This, plus the fact that total indirect costs have been kept down to a shade over 20 per cent of total direct flying operations, is mentioned chiefly because cost consciousness is clearly a prerequisite to the movement of bulk freight by air.

As to international air freight potential in the planning days, there were no yardsticks. No real effort had ever been made to explore the field of air freight as contrasted with air express, but a survey of the latter was heartening for two main reasons. First, it showed almost complete lack of air freight facilities which would make bulk shipment possible and dent the North Atlantic slow boat tradition. Second, shippers of all types were unanimous in stating that air express rates ruled out all but "must" items; restrictions on weight and size were totally inadequate; air shipping space was hard to get; and when it was available it was unreliable because of the practice of offloading in favor of passengers.

Clearly, then, what was needed was a facility devoted to air freight alone; conducted with the highest maintenance and operating standards, but with the strictest austerity; offering capacity for bulk shipment; and dedicated to meeting the shipper's needs.

Here was the opportunity for those who had flown supplies to fighting men the world over; had shifted a Chinese Army and its paraphernalia from Western China to Shanghai; and had operated, maintained, and directed the logistical use of hundreds of aircraft. It was extremely unlikely that any of them could have quoted Tennyson's purple verse about "the argosy of the skies," but the dream was there nevertheless.

II

In international air freight, traffic, operations, and sales must be geared to the single-minded job of giving the shipper what he is paying for—speed of delivery. Twenty-four hour flight to Europe means nothing if documentation of shipping papers, ground handling, government clearances, and loading are not expedited.

Normal procedure on air express involves notification by mail following arrival of the goods at the airport. That isn't good enough for air freight. It must be done by phone or wire, or the airline must have authority to appoint a broker to clear the shipment. Because of the small number of shipments per aircraft involved in a bulk air freight operation, this sort of tactic is facilitated, and it is possible much of the time to truck the goods to their ultimate destination on the day of arrival at the airport.

Conversely, outward bound shipments must waste no time on the ground. Perhaps an outstanding instance of flexibility, so essential to the operation, may be cited. Last July, the *S.S. Seven Seas* was disabled in London for want of an 8,500 pound rotor for its diesel engines. The cable notifying the ship's operator was received in New York at 16:00 DST. The piece was located on Staten Island at 16:20, space booked at 16:35, and loading at Staten Island begun at 17:30. The rotor reached the New York International Airport at 21:00, and the airplane departed at 23:32, reaching London the following evening. Such a performance should be routine with the international air freighter.

The traffic department must apply itself to close study of the airplane's capacity in relation to weight, dimensions, floor loading, support, tie-down, containment, and attention en route. Specialized attention must be given to load engineering, and there should be much experimentation with freight of all the sizes, shapes, and weight that can be made to fit into the 15,000 pound payload capacity of a stripped-down DC-4, which is the airplane now available for over-ocean carriage.

The traffic department must be prepared to boggle at nothing. True, it has been our experience over two and a half years that wearing apparel constitutes about 43 per cent of the total business, with substantial percentages of pharmaceuticals, furs, textiles, watches, clocks, cameras, automotive and aircraft parts, castings, boiler

tubes, etc., making up the greater part of the remaining 57 per cent. But whole aircraft have been offered and accepted; and also Bell helicopters, ship's parts in single units in excess of seven tons, dredging machinery and oil refining machinery up to six tons, race horses, cattle shipments in excess of five and a half tons, small elephants, dogs, snakes, gorillas, leopards, and cages of monkeys. These last animals require particular care en route, especially on such a flight as was made early this year ranging from 100 degrees Fahrenheit plus in Singapore to 16 below at Labrador.

The development of international air freight calls for a constant missionary effort, in this country and especially in Europe, to wean the shipping mind away from the boat tradition and acquaint it with the economics of air freight. The Continental mind particularly was not exposed during the war to the knowledge of strategic airlift, and consequently the most elemental education about the capacity of a four-engined airplane must be carried on there if the business is to grow.

Safety is, of course, the prime consideration of the operations division of every airline; Seaboard is no exception, and it is proud of a record in that respect which is second to none in the world among either passenger or freight carriers. The air freight carrier, however, departs from the second chief consideration of the passenger carrier—performance of schedules—and aims for economy of operation consistent with the best possible service to shippers. Aircraft must be routed to achieve the maximum out of every gallon of fuel. Weather and other data must be collated so that aircraft can be routed to provide maximum lift at minimum cost, and while the captain of any flight makes the final decisions, they are based on information sent to him at any and all points.

If I may again use Seaboard as illustrative of the development of the business, flight operations were begun May 10, 1947, with one DC-4. The present fleet is five DC-4's. From the first, they were converted to the carriage of a 15,000 pound payload.

The first eight months (May through December, 1947) produced a total of 1,267,000 freight ton miles.

The succeeding twelve months of 1948 saw a ton mile carriage of 5,715,000. Thus far this year (1949), to August 31, the ton mile total is 3,047,000, making the grand total for twenty-eight months slightly in excess of 10,000,000 freight ton miles.

The true "freight" nature of the carriage may be shown by two comparisons.

Early this year, the Port Authority of New York analyzed the property carriage of twelve passenger airlines operating internationally out of LaGuardia and Idlewild. There were 1,140 separate shipments in twenty-four hours, and 94 per cent of them weighed less than 100 pounds.

A recent breakdown of Seaboard's monthly carriage showed that 73 per cent of the total weight carried was accounted for by individual shipments of 700 pounds or over; 66 per cent represented shipments of 1,000 pounds or over; 52 per cent represented shipments of over one ton; only 5 per cent of the total weight represented shipments of 100 pounds or less.

This difference in the weight of shipments as carried by Seaboard and as carried by the passenger airlines is of real significance. It shows clearly the bulk nature of air freight; it shows clearly that someone new has come within the field of vision of the airlines—the exporter who ships his quantity order by air instead of merely his samples. For years exporters' samples have traveled to destination by air express, carried in the cargo compartments of passenger airplanes. Now for the first time, a significant volume of bulk goods has been wrested away from the traditional ocean freighter. If this small and yet significant victory is to blossom forth into a truly vast exchange of goods by air to and from all ports of the world, it will be done only through the dogged efforts of those airlines who have faith in the future, singleness of purpose and organization, and airplanes dedicated to the needs of the shipper.

A recent article in *Shipping Digest* will help illustrate the latter point. The fact that it refers to the B.O.A.C. makes the illustration none the less applicable to most operators of combination passenger-mail-express airplanes. The article stated:

> One evening at 6:30, B.O.A.C. received an order to ship one piece weighing 1,885 lbs. to Durban, South Africa. The piece of cargo was seven inches too long to fit into a Constellation, so a booking was made on another carrier to fly the cargo to Cairo. . . .

It is a splendid example of the truth that the passenger-mail-express carrier is not geared by the nature of its equipment, its operations, or its thinking to fly bulk freight. When an Italian tanker lay disabled at Milan a few months ago for want of a lower stern frame weighing seven and a quarter tons, there was no question of its being "seven inches too long" for Seaboard's Airtrader.

It is perfectly clear that bulk freight cannot be loaded into a DC-4 passenger airplane whose largest door measures a fraction under 38 by 30 inches; or into a Constellation whose largest door measures 41 by less than 23 inches.

It is quite absurd to talk about conducting international air freight operations with passenger-carrying aircraft flying on schedule. Such scheduled flights mean that the freight shipper must conform to a rigid operation and take a chance that his freight will be loaded piecemeal—if there is any space available at all. To treat freight as a secondary (or is it tertiary?) consideration is definitely not to develop the business.

The trans-Atlantic certificated passenger carriers, arguing diversion, have cited that they are unable to utilize even 50 per cent of the available weight space in their combination planes. But diversion isn't the reason; the non-utilization arises from the fact that the air freight shipper is not interested in the kind of accommodation he gets from operations which:

(1) Limit the type of goods which can be carried by size, weight, shape, and nature.

(2) Cannot accommodate any freight at all during peak periods of passenger travel where there is just about enough space left, after passengers and mail are loaded, to carry a few express packages.

(3) Cannot guarantee him against off-loading at any point en route, in favor of mail, passengers, and other priority requirements.

Entirely apart from these considerations, the passenger-mail-express carrier lacks the flexibility to develop air freight, which is just not adaptable to passenger schedules. Unused space in a passenger plane can never fill the air freight shipper's requirements because the space bears no relationship to the time and place where the freight demand exists. It is useless to offer the shipper space on a Brussels-bound airplane when he wants to ship to Geneva. And 16,000 ton miles of "space" in the belly compartment of a passenger plane is equally useless if there are two prize bulls to be loaded.

None of this discussion is intended to derogate from the performance of the scheduled passenger carriers as such. It is simply by way of suggesting that "they stick to their lasts," which is the carriage of passengers, mail, and express, unless they are prepared to tackle the international air freight business by getting down to their shirt sleeves and separating it from the plush of the other operations.

The truth is that freight has not been diverted during the past two years on the North Atlantic route from the grandfather airlines. The truth is that if it had not been moved by the all-freight air carrier, it would have moved by ocean shipping. For instance: a New York clothing exporter shipped abroad from October 21, 1946, through May 5, 1947, by boat 266,571 pounds of merchandise, and by airplane 972 pounds. During the succeeding nine months when an all-freight carrier's services were available, the firm shipped 40,565 by air and 1,371 by boat.

III

Seaboard's operations from an equipment point of view are modest; they are gigantic when put against non-existent yardsticks for comparison. This pioneering has proved the need for international air freight service between the United States, Ireland, Great Britain, the western perimeter of Europe, Germany, Switzerland, Italy, Greece, Egypt, and the Middle East. It has proved that a bewildering array of goods will move by air with profit to the carrier and the shipper.

Even with the use of the DC-4, an airplane not specifically designed for air freight, it has been possible to reduce freight rates substantially within two years. Briefly, rates between New York and Brussels, Geneva and Milan, for instance, have been cut from 30 to 36 per cent. The rate to and from Athens for a 5,120-mile haul is currently comparable to a rate two years ago for a 3,979-mile haul to Geneva. Month by month, specific commodity rates swell the already substantial list between fifteen cities of Europe and the Middle East and the United States; insurance and excess valuation rates also have been comparably reduced.

The need for such an international air freight operation can best be met by the all-freight carrier, unsubsidized, operating on a demand basis rather than on a rigid schedule, and affording service to a number of cities in specific areas rather than one city on a specific route. This latter condition is necessary in order to enable

the carrier to serve the bulk shipper at the most convenient shipping point; to provide the carrier with a sufficient trade area from which to draw freight moving in both directions regardless of seasonal or other fluctuations; and to provide alternate cities and airports so that the hazards of spoilage in the case of perishable cargo may be minimized.

It is essential that the fundamental difference between air transportation of property and of persons be recognized in considering the above. The property carrier must be permitted to fly between specific areas or terminals on the most direct practical route on which weather is flyable, if he is to render the most valuable, dependable, and economic service. The demand basis is especially important if the carrier is to be sufficiently flexible to meet the needs of air freight shippers.

IV

Assuming the design and construction of a freight airplane with a high payload and reasonable operating costs and assuming the acquisition of those airplanes in such substantial numbers as to constitute a Merchant Marine of the Air, the impact upon world commerce and marketing practices will be tremendous.

To the present highly developed areas of the world would be given a means of transportation which would totally revolutionize marketing and distribution thinking. To the undeveloped areas, potential untapped markets, would be afforded the boon of direct flight and close contact with the industrial world. Direct flight would be especially important to those whose internal transport is primitive and slow. To all inland points the world over would be brought the advantages of tide-water.

The race in commerce has always been to the swift. It will be truer still as this air age progresses. Availability of international transport in the air will attract volume, as it always has in other fields of transportation. To date, volume has been retarded because adequate air transport for goods has been generally unavailable.

But as it becomes available through the operation of large numbers of freight aircraft, a substantial section of industry and commerce will become impatient with slow water-borne transport. It really doesn't matter who takes the loss entailed by idleness of merchandise and machinery in transit, the loss is there; it is a loss to society which cannot be tolerated when the means are available to reduce it to a minimum.

Then, too, ocean surface shipping was tolerable in the days of slow communication of information. Once upon a time, we didn't know what was going on industrially or otherwise in England or France or Greece until a ship arrived with letters and newspapers to tell us about it. Today, communication has the speed of light; it is unthinkable that we should cling to the transit speeds of a century ago when we know instantly what *X* has 3,000 miles away which we need, or *X* knows what we have that he needs.

The efficiency of international air freight in avoiding loss entailed by slow transport is illustrated often in these days of so-called regression, alias the buyer's market. For instance:

This mid-summer a New York importer wanted 30,000 pounds of fine woolens and worsteds for men's and women's wear from Europe to meet manufacturers' demands for material to make garments for the fall trade. Surface shipping could not meet the need; fabric and style had been settled upon, the market calculated, and the peak determined. The goods must fly.

If we accept the passenger airlines' descriptions of their own "cargo" operations, the 30,000 pounds, factory-prepared in bales of 150 pounds each, probably would have moved at the rate of a half dozen bales or less per flight, not to mention the chance of their being off-loaded at Shannon or Gander. Conceivably, thirty to forty flights would have been required to move the shipment. Flown by passenger carrier, the goods would have dribbled into New York; the manufacturer would have sweated out the question of whether he would ever get his share in time for processing; and the importer would have had a total of about $320,000 purchase price, customs duties, and carriage cost tied up for an unknown length of time.

Being an astute fellow, the importer had them flown by an all-freight carrier in three sections, along with several thousand pounds of other freight, in less than a week. Musing on the operation at Idlewild when the second section arrived and the third was in the offing, he said: "The money will be in the bank on Thursday."

This illustration brings into focus all the dire things that can happen to an importer or manufacturer awaiting merchandise from a point thousands of miles distant—the passing of the peak demand; tie-up of capital; the necessity for large inventories and the threat of forced, ruinous sales if the demand passes; warehousing and transshipment costs; and the losses from pilferage and damage.

In export to Europe, air freight can justify itself by direct flight to destination alone when it is remembered that the Department of Agriculture estimates, in regard to American food shipments to that continent, that freight travels about ***eight miles a day*** to its destination after it reaches a European port. This appalling fact was revealed when Secretary Brannan was asked to explain why potatoes were being destroyed in this country and not sent to Europe. He replied simply that if we could find the refrigerated ships to carry them, we would find the European docks too congested to receive them, and after that they would rot while moving at a snail's pace in European rolling stock.

V

National defense has a vital stake in air freight development. This is shown by the oft-repeated statements of such as Major Generals Kuter, Tunner, Knerr, and others, that the Military Air Transport Service cannot possibly acquire and maintain in peace the strategic airlift facilities which would be required in time of serious national emergency; and that the solution lies in the commercial acquisition and operation of large numbers of long-range freight aircraft which would be instantly available, with crews and ground personnel, when needed.

It will not be amiss to furnish here modest but emphatic proof of the air freight carrier's ability to perform in an emergency.

Late in June, 1948, when the Russians blockaded Berlin to surface traffic and the Air Force threw every available airplane into what came to be known as "Operation Vittles," commercial air carriers were called upon to give logistical support, lifting engines and critical parts between this country and Frankfurt to keep the shuttle to Berlin going. First off the ground from Westover Field, Massachusetts, were two Seaboard airplanes to Frankfurt. Of the first twenty-five emergency flights, Seaboard made ten. On those ten flights—40 per cent of the total—it lifted 43 per cent of the tonnage; its average load exceeded the average of all other participants by 1,656 pounds.

In all, through December 31, 1948, Seaboard carried 1,346,619 pounds of critical military material over the North Atlantic on 106 flights, and in addition shuttled 1,258,800 pounds of commercial freight, vital to the airlift program, between Berlin and Frankfurt. Seaboard's over-ocean performance in this international emergency was not only far in excess of any single passenger airline, but was double the performance of all passenger airlines combined. Solely because its equipment, personnel, and methods of operation were instantly adaptable to the national defense demands, Seaboard carried the predominant share of military cargo.

This freight carrier performance should surprise no one. It did not surprise us. We were performing commercially in June, 1948, exactly the kind of air transportation which the Air Force needed in a hurry; we had the equipment, the trained freight-flying crews, the expert loaders, the ground organization, and the flexibility to adapt ourselves instantly to the national defense need. The emergency was essentially no different than, for instance, that created by the Middle East cholera epidemic of two years ago. The World Health Organization at that time came to the infant Seaboard to lift 30,000 pounds of cholera vaccine to Cairo and Damascus. The vaccine was on its way eighteen hours after the conversations were opened. Neither national defense nor dread plague can wait while air transportation readjusts its thinking and thrashes about in an effort to adapt itself to operations completely foreign to its nature.

VI

Utilization of freight aircraft as instruments of world commerce is of vital significance to the economic, social, and political development of the world. Of far greater significance than mere speed is the creation of new markets, and the exchange of goods of all types and uses on a vast scale.

The fifteenth-century Portuguese traders, the Yankee Clipper ships, and the modern steam freighters have all made their contribution to shrinking the world, making its people known to one another, and developing commerce. The airplane is now ready. Properly developed and utilized, it will make the most inaccessible community the greatest port; it will create highways of the air to bring closer to realization the one world conception which is so necessary if civilization is to survive in the atomic age. Only the failure to see the possibilities and to adopt an intelligent air freight policy can thwart this *ultima* of transportation.

LIABILITY PROBLEMS OF AIR CARGO CARRIAGE

CHARLES S. RHYNE*

Air transportation of cargo had its beginning at about the same time as did air transportation of passengers. On November 14, 1919, the American Railway Express sponsored a cargo plane flight which was unsuccessful because of a forced landing; however, this unfortunate experiment was followed by successful operations of the Ford Motor Company in 1925 and the American Railway Express in 1927.[1] Further development in this field of aviation was stimulated by the transfer of the air mail service to carriers, and in the early 1930's several major airlines took an active part in the transportation of property by air, but unfortunately found there was insufficient traffic to pay expenses.[2] There was continued activity in this field of aviation, but it was not until the end of World War II that the transportation of air cargo consisted of anything except small express shipments. American Air Lines was a pioneer in providing extensive freight service, beginning on October 15, 1944, and in the next two years was followed by a majority of the other major airlines and several noncertificated cargo carriers.[3] In 1946 the carriers carried an estimated fifty million ton miles, three times as much as was hauled during the six preceding years.[4]

From the very beginning of shipments of property by air the carriers have imposed a limitation on their liability. The Ludington Airlines and the General Air Express in the early 1930's limited their liability to the declared value of shipments carried by them.[5] The American Railway Express, the only carrier maintaining continued operations in this field down through the years, in the operation of its express service in interstate commerce has transported goods on the Air Express Receipt, limiting its liability to the declared value of any shipment it accepts.[6] This was followed by the United Airlines in filing its first tariffs on February 1, 1946.[7] Shipments were accepted subject to a released valuation not exceeding $50 for shipments of 100 pounds or less, or 50 cents per pound for shipments in excess of 100 pounds, with the shipper having the opportunity of declaring a value in excess of the above amounts and paying an additional 10 cent charge for each $100 or fraction thereof above the released value. This procedure was in turn adopted by the other carriers.[8]

There is little statutory or case law on damage claims for injury in aircraft acci-

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[1] SORRELL, PROSPECTIVE CARGO TRAFFIC, PROSPECTS AND PROBLEMS IN AVIATION (1945).

[2] Frederic and Lewis, *History of Air Express*, 12 J. AIR L. AND COM. 203 (1944).

[3] Torgerson, *History of Air Freight Tariffs*, 15 J. AIR L. AND COM. 47 (1948).

[4] Drew and Passen, *Air Cargo: A New Force in Marketing*, 14 J. AIR L. AND COM. 11 (1947).

[5] Frederic and Lewis, *supra* note 2, at 210, 222.

[6] Anderson, *Liability of Air Carriers*, 13 J. AIR L. AND COM. 281 (1942).

[7] Torgerson, *supra* note 3, at 50.

[8] *Ibid.*

dents to baggage or cargo. There is no federal legislation on the subject and Maryland has the only state statute.[9] No court has passed upon the validity of the limitations contained in the Air Express Receipt,[10] or on the validity of baggage regulations filed in air carrier tariffs under the Economic Regulations[11] promulgated by the Civil Aeronautics Board pursuant to the Civil Aeronautics Act.[12]

Adequate insurance coverage is available to today's air cargo carrier, but it must be concerned with obtaining cargo insurance at rates which are reasonable to it and at the same time provide adequate coverage for the shipper's property. It is evident that the amount the carrier must pay for adequate insurance will directly affect the amount the shipper must pay for shipping his property, which in turn will ultimately affect the amount of property shipped by air. It must be recognized that it is to the advantage of the carrier, the shipper, and the public in general that transportation of property by air be extended to its fullest capabilities. This can only be done if the carriers offer reasonable shipping rates and at the same time assure the shipper a reasonable return if his property is lost or damaged.

It would seem that the problem of reasonable rates for insurance is closely related to the right of the carrier legally to limit its liability by publishing the limitation in the express receipt or in a tariff, for by so doing it can carry a lesser amount of insurance. In regard to the shipper any proper solution must be fair. He is at least entitled to the assurance of a return of the reasonable value of his property in case of loss or damage as well as being able to ship his property at reasonable rates and to know approximately his status in the situation. Really the main difficulty in this field of aviation is uncertainty.

Generally the first problem to be considered in determining the liability of a carrier is to ascertain whether the carrier is a common or private one. The chief test applied is whether or not the operator of the aircraft, either by express written or oral statements, or by his course of conduct, holds himself out to the public as willing to carry at a fixed rate all persons applying for transportation or all goods presented for carriage so long as his plane or planes will carry them.[13] Different rules of liability apply to these two types of carriers. Private carriers are liable only if negligent while, in the absence of statutes, common carriers are held to be insurers of the safety of property entrusted to their care except for loss caused by acts of God,

[9] Md. Laws 1931, c. 403; 1931 U. S. Av. R. 365. The Maryland statute, which applies only to interstate and foreign air commerce, requires a written declaration of the character and value of certain named articles at the time they are entrusted to an air carrier or the carrier is not liable as "carrier thereof in any form or manner." These articles include gold and other precious metals and goods. Air carriers are exempt from liability for damages caused by injury or loss of such articles caused by faults or errors in navigation, dangers of the air, acts of God or a public enemy, inherent defects of the thing carried, insufficiency of package, seizure under legal process, acts of the shipper, or acts done while attempting to save life or property.

[10] CHARLES S. RHYNE, AVIATION ACCIDENT LAW 105 (1947).

[11] See Sec. 2241 as amended.

[12] 52 STAT. 992 (1938), 49 U. S. C. §483 (1946).

[13] For a discussion with cases on the subject of aircraft operators as common or private carriers, see RHYNE, *op. cit. supra* note 10, at 45-54.

the public enemy, public authority, or the shipper, or by the inherent nature of the goods. However, since the Economic Regulations of the Civil Aeronautics Act of 1938[14] apply only to common carriers, this article will consider only the problems of the common carrier of cargo by air.

Since it is the general rule that common carriers of goods are held liable for loss or damage of goods entrusted to their care, it would logically appear that common carriers of goods by airplanes are subject to the same general rules as other common carriers and that the courts will most certainly apply to the common carrier by air the same rules which the common law developed for the others.[15]

Courts in the United States have consistently held provisions limiting the liability of air carriers and other common carriers for damages arising from personal injuries to passengers invalid as contrary to public policy.[16] These courts, however, have upheld such liability limitations when applicable to baggage or express if such provisions are reasonable and do not exempt the carrier from liability for its own negligence.[17] Also, the United States courts have held that provisions in the ticket providing that the company was not a common carrier are invalid.[18] The Supreme Court of the United States has said:

> Whether a transportation agency is a common carrier depends not upon its corporate character or declared purposes, but upon what it does.[19]

The Civil Aeronautics Act of 1938 requires the carriers to file tariffs[20] with strict observance of those tariffs enforced upon the carriers[21] and with any departure from them made a criminal offense.[22] It is within these tariffs that the carriers' limitations of liability are found, and the problem arises now as to the effect of these filed tariffs on the contracts of carriage. Since there is no statutory or case law on this particular subject, it is necessary to determine how the problem has been handled in other fields and by analogy apply that to aviation.

Where the problem has come before the courts as to the rates charged by the carriers the courts have almost consistently held that the filed tariff is conclusive evidence of the contract of carriage.[23] However, where the problem involves a rule

[14] 52 STAT. 977 (1938), 49 U. S. C. §401 (1946). See RHYNE, *Federal, State and Local Jurisdiction Over Civil Aviation*, 11 LAW AND CONTEMP. PROB. 459 (1946).

[15] Godehn *et al.*, *Proposed Law of Air Flight*, 8 J. AIR LAW 505, 530-539 (1937); Greer, *The Civil Liability of an Aviator as Carrier of Goods and Passengers*, 1 J. AIR LAW 241, 244 (1930).

[16] Allison v. Standard Airlines, 1930 U. S. Av. R. 292 (U. S. D. C. Calif. 1930), *aff'd*, 67 F. 2d 668, 1933 U. S. Av. R. 92 (C. C. A. 9th 1933); Curtiss-Wright Flying Service, Inc. v. Glose, 1933 U. S. Av. R. 228 (U. S. D. C. N. Y. 1932); Conklin v. Canadian Colonial Airways, Inc., 242 App. Div. 625, 271 N. Y. S. 1107, 1934 U. S. Av. R. 21, *aff'd*, 266 N. Y. 244, 194 N. E. 692, 1935 U. S. Av. R. 97.

[17] Pennsylvania R. R. v. Hughes, 191 U. S. 477 (1903); Adams Express Co. v. Croninger, 226 U. S. 491 (1913).

[18] Conklin v. Canadian Colonial Airways, Inc., *supra* note 16; Law v. Transcontinental Air Transport, Inc., 1931 U. S. Av. R. 205 (U. S. D. C. E. D. Pa. 1931).

[19] United States v. California, 297 U. S. 175, 181 (1936).

[20] Sec. 403(a), 52 STAT. 992, 49 U. S. C. A. §483(a) (Supp. 1948).

[21] Sec. 403(b), 52 STAT. 992, 49 U. S. C. A. §483(b) (Supp. 1948).

[22] Sec. 902(a) and (3), 52 STAT. 1015, 49 U. S. C. A. §662(a) and (d) (Supp. 1948).

[23] Texas and Pacific Ry. v. Mugg and Dryden, 202 U. S. 242 (1906); Louisville and Nashville R. R. v. Maxwell, 237 U. S. 94 (1915); Loomis v. Lehigh Valley R. R., 240 U. S. 43 (1916); Lowden v. Simonds-Shields-Lonsdale Grain Co., 306 U. S. 516 (1939).

contained in a tariff the courts have not been as consistent.[24] The case of *Adams Express Co. v. Croninger*[25] is basic in this field. Here the shipper delivered a diamond ring to the express company for interstate shipment. Upon non-delivery of the ring he instituted action for its market value. The defense of the express company was that provisions in the receipt and the tariff filed with the Interstate Commerce Commission required the value of the property shipped to be declared and limited liability for loss to $50 if the value was not declared. The Supreme Court held the contracts for shipments of interstate goods were governed by the Interstate Commerce Act and that the shipper was presumed to have knowledge of the filed tariff provisions and was therefore bound by those provisions. The Court based its decision on the Carmack amendment to the Interstate Commerce Act. This decision was followed by several cases[26] which in turn were followed by the First[27] and Second Cummins Amendments to the same Act.[28] The latter now provides as follows:

> Any common carrier, railroad, or transportation company subject to the provisions of this chapter receiving property . . . shall issue a receipt or bill of lading therefor, and shall be liable to the lawful holder thereof for any loss, damage, or injury to such property caused by it or by any common carrier, railroad, or transportation company . . . and no contract receipt, rule, regulation, or other limitation of any character whatsoever shall exempt such common carrier . . . from the liability hereby imposed; and any such common carrier . . . shall be liable to the lawful holder of said receipt or bill of lading . . . for the full actual loss, damage or injury to such property . . . notwithstanding any limitation of liability or limitation of the amount of recovery or representation or agreement as to value in any such receipt or bill of lading, or in any contract, rule, regulation, or in any tariff filed with the Interstate Commerce Commission; and any such limitation, without respect to the manner or form in which it is sought to be made is declared to be unlawful and void; . . . Provided, however, that the provisions hereof respecting liability for full actual loss, damage, or injury, notwithstanding any limitation of liability . . . and declaring any such limitation to be unlawful and void, shall not apply, first, to baggage carried on passenger trains or boats, or trains or boats carrying passengers; second, to property, except ordinary livestock, received for transportation concerning which the carrier shall have been or shall be expressly authorized or required by order of the Interstate Commerce Commission to establish and maintain rates dependent upon the value declared in writing by the shipper or agreed upon in writing as the released value of the property, in which case such declaration or agreement shall have no other effect than to limit liability and recovery to an amount not exceeding the value so declared or released . . . and any tariff schedule which may be filed with the commission pursuant to such order shall contain specific reference thereto and may establish rates varying with the value so declared and agreed upon. . . .

[24] Judge v. Northern Pacific Ry., 189 Fed. 1014 (C. C. D. Ore. 1911).

[25] 226 U. S. 491 (1913).

[26] Chicago, St. P., M. and O. Ry. v. Latta, 226 U. S. 519 (1913); Missouri, K. and T. Ry. v. Harriman, 227 U. S. 657 (1913); Wells Fargo and Co. v. Neiman-Marcus Co., 227 U. S. 469 (1913); Atchison, T. & S. F. Ry. v. Robinson, 233 U. S. 173 (1914).

[27] 38 STAT. 1196 (1915), 49 U. S. C. A. §20 (Supp. 1948), which made the carriers fully liable for loss or damage despite any limitation of liability.

[28] 39 STAT. 441 (1916), 49 U. S. C. A. §20(11) (Supp. 1948).

It is apparent from the above that the Congress has, by express language, permitted the railroads to establish limitations on their liability.

The Civil Aeronautics Act of 1938 does not contain any language similar to that quoted above. Section 484(a) of the Act does, however, provide:[29]

> It shall be the duty of every air carrier to provide and furnish interstate and overseas air transportation, as authorized by its certificate . . . to establish, observe, and enforce just and reasonable individual and joint rates, fares, and charges, and just and reasonable classifications, rules, regulations, and practices relating to such air transportation. . . .

But it is apparent that the duty to establish "just and reasonable . . . rules, regulations, and practices relating to such air transportation" is not equivalent to an express permission to limit liability.

There have been three decisions on the question of the tariffs filed under the Civil Aeronautics Act. In *Jones v. Northwest Airlines, Inc.*,[30] plaintiff purchased a round trip ticket and informed the airline agent that his time within which to make the trip was limited. He was advised that he would probably have adequate time. The ticket contained the usual provision that it was sold subject to tariff regulations. The flight was cancelled because of weather and plaintiff was told that he could have the next available transportation. He demanded a seat on the next plane and was refused. He then brought suit for breach of contract alleging that the contract of carriage was based on the time element involved and that he was entitled to the next available seat. The court held that the plaintiff purchased his ticket subject to tariff provisions on file with the Civil Aeronautics Board, one of which provided that the carrier could at any time without responsibility make any flight cancellations it deemed advisable, and that therefore there was no breach of contract.

In *Adler v. Chicago and Southern Air Lines, Inc.*,[31] the plaintiff also sued for damages when the airline cancelled a flight. The airline again defended on the ground that its tariffs provided for cancellation. The court disposed of the plaintiff's contention that the rule was unreasonable by dismissing the complaint on the ground that the Civil Aeronautics Board had exclusive jurisdiction to pass on the lawfulness of the rule.

In the third case, *Swivalk v. Pennsylvania-Central Airlines Corp.*,[32] which is the only American court decision involving a claim for damages to baggage, plaintiff, an intrastate passenger on an interstate airline, brought an action for damages to her baggage caused by the breaking of a bottle of toilet water wrapped securely in her traveling bag. The bottle broke as a result of the defendant's employee placing

[29] 52 STAT. 993 (1938), 49 U. S. C. §484(a) (1946).
[30] 157 P. 2d 728 (1945).
[31] 41 F. Supp. 366 (E. D. Mo. 1941), 1942 U. S. Av. R. 18.
[32] 1941 U. S. Av. R. 66 (C. C. Mich. 1940). In England the case of Aslan v. Imperial Airways, Ltd., 175 L. T. 378 (K. B. 1933), holds that a provision in a contract of carriage exempting the air carrier from liability for loss of certain gold bullion is valid so there can be no recovery for loss of the bullion.

a heavy box on the traveling bag. The defendant, pursuant to its business as an interstate carrier, had filed tariffs and regulations with the Civil Aeronautics Authority and one of these had provided under "Articles not acceptable as baggage" that "Except upon special arrangements made in advance . . . liquids . . . which are not suitable for transport by aircraft . . . will not be accepted as baggage or enclosed in luggage." The plaintiff's ticket had printed on it, "Subject to tariff rules and regulations." The court held that the regulation did not apply, since it was not the intention of the air carrier to so hamper air travel as to bar travelers' toilet cases containing small quantities of liquid toilet articles.

It appears from the problems considered above that the courts will uphold any reasonable limitations on liability imposed by the air cargo carrier. We may further assume that when the problem before the court is one dealing with a rate in a tariff, the tariff will be considered the contract of carriage and conclusive as far as rates are concerned. However, when the court has before it a rule or regulation contained in a tariff, it would appear that the rule or regulation may be attacked on the grounds of being unreasonable, of being beyond the intention of the legislature, and in general of being unlawful.[33]

All kinds of ideas have been advanced with the object of freeing civil aviation from the uncertainties created by the existing legal rules of civil liability. These include compulsory insurance,[34] uniform state liability legislation,[35] federal liability legislation,[36] international conventions,[37] and the formation of mutual cooperative associations by air transport companies to standardize the liabilities of these companies.[38] This subject has been given most thorough consideration by the American Bar Association,[39] state aviation officials,[40] the Air Transport Association, the National Conference of Commissioners on Uniform States Laws,[41] and the Civil Aeronautics Board.[42] In order to have any fair workable solution to these uncer-

[33] For two excellent discussions of the entire tariff problem, see Markham and Blair, *The Effect of Tariff Provisions Filed Under the Civil Aeronautics Act*, 15 J. AIR L. AND COM. 251 (1948), and King, *The Effects of Tariff Provisions: Some Further Observations*, 16 J. AIR L. AND COM. 174 (1949).

[34] Ball, *Compulsory Airplane Insurance*, 4 J. AIR L. 52 (1933); O'Ryan, *Limitation of Aircraft Liability*, 3 AIR L. REV. 27 (1932).

[35] Knauth, *The Uniform State Aeronautical Liability Act*, 9 AIR L. REV. 352 (1938). In opposition to this proposed Act, see David, *The Uniform State Aeronautical Code*, 8 AIR L. REV. 282 (1937), and David, *Comments on the Proposed Uniform Aviation Liability Act*, 9 AIR L. REV. 359 (1938). Also see the very careful analysis of the proposed uniform law in Godehn *et al.*, *Proposed Law of Air Freight*, 8 J. AIR. L. 505 (1937), 9 J. AIR L. 132 (1938).

[36] SWEENEY, REPORT TO THE CIVIL AERONAUTICS BOARD OF A STUDY OF PROPOSED AVIATION LIABILITY LEGISLATION (1941); Fike, *The Problem of Interstate Air Commerce Casualties*, 9 AIR L. REV. 250 (1938); Buhler, *Limitation of Air Carriers Tort Liability and Related Insurance Coverage—A Proposed Federal Air Passenger Liability Act*, 11 AIR L. REV. 262 (1940). See H. R. 531, H. R. 532, H. R. 4912, and S. 1905, 79th Congress (1945-1946).

[37] RHYNE, *op. cit. supra* note 10, at 252-283.

[38] Fike, *Air Transportation Protection*, 8 AIR L. REV. 316 (1937).

[39] *Report of the Standing Committee on Aeronautical Law*, 67 A. B. A. REP. 186 (1942), and CURRENT STATUS OF AVIATION LAW, A REPORT TO THE HOUSE OF DELEGATES OF THE AMERICAN BAR ASSOCIATION BY THE STANDING COMMITTEE ON AERONAUTICAL LAW (1947).

[40] *Report on the Proposed Uniform Aeronautical Code*, 9 J. AIR L. 679 (1938).

[41] Schnader, *Uniform Aviation Liability Act*, 9 J. AIR. L. 664 (1938).

[42] See SWEENEY, *op. cit. supra* note 36.

tainties it is clear that the air cargo carrier and air cargo shipper must both make reasonable concessions. Also, the insurance industry should contribute its maximum effort in this field of aviation.

The latest survey on aviation insurance was made by the Civil Aeronautics Board in 1944,[43] when it was discovered that three insurance groups dominate the American aviation insurance market: Aero Insurance Underwriters, Associated Aviation Underwriters, and United States Aviation Underwriters, Inc. Through them, the group plan of underwriting has been the manner in which aviation insurance has developed in the United States, with a spreading of a given risk over a number of companies. According to the survey the underwriting groups consisted of a small percentage only of the available insurance companies in the United States,[44] but they were providing a wide range of coverage which at this time did not include writing insurance on cargo. However, the groups expressed the desire to go into this field in the future. On the basis of information furnished the Board it concluded that underwriting experience in the field of aviation had been favorable, with substantial profits.[45] The Board further found an absence of competition among the underwriters but did not find any agreements between them or that one group dominated another. The Board concluded that there was no question but that in America there were adequate insurance assets for the aviation market and that the Federal Government had an interest in seeing that the American aviation insurance market functioned so as to make its maximum contributions to the development and expansion of aviation. The Board remarked on the unavailability and inadequacy of information furnished, and stated that the information before it did not permit any conclusions as to whether the aviation market had been functioning in accord with the public interest in the development of aviation. The Board concluded the report by stating continued observation was in order, but unfortunately as of the writing of this article nothing further has apparently been done. It is certainly true, as the Board concludes, that at least as of the date of the report there were substantial insurance resources not participating in the field of aviation and that the American insurance market could contribute much in this field.

In considering a reasonable solution to the problems presented it is interesting to look at other types of common carriers of cargo and see how their problems have been dealt with.

In the very closely related field of international transportation of cargo by air the Warsaw Convention[46] is controlling. The United States and most of the major

[43] CIVIL AERONAUTICS BOARD, A STUDY OF AVIATION INSURANCE (1944).

[44] During the year 1942 there were 267 American stock fire insurance companies doing business in the United States and only 76 were members of the three groups; also there were 181 stock casualty insurance companies and 23 were members of the three groups. See Shrimpton, *Insurance on Wings*, 17 ROCKY MT. L. REV. 58 (1944).

[45] During the year 1941 the three underwriting groups wrote $13,303,034 worth of premiums for all classes of aviation risks. Profits amounted to 25.4 per cent of premiums for airline insurance alone and 25.9 per cent of premiums when all classes of aviation insurance were considered.

[46] 49 STAT. 3000 (1934), *International Air Transportation*, U. S. TREATY SER. No. 876 (1934).

nations of the world are parties to this. The Convention applies to all international transportation of persons, baggage or goods performed by aircraft for hire, with no distinction between common and private carriers.[47] The Convention requires the issuance of a specified passenger ticket, baggage check, and air waybill and gives the detailed provisions which "must" be included.[48] If an air carrier accepts a passenger, baggage, or goods without issuing the passenger ticket, baggage check, or air waybill, it is not entitled to avail itself of those provisions of the Convention which exclude or limit its liability.[49] The Convention provides that the air carrier shall be liable for damages sustained by destruction, loss, or damage to baggage or goods,[50] with the defense available to the carrier that the damage was occasioned by error in piloting, in the handling of the aircraft, or in navigation, and that in all other respects the carrier had taken all necessary measures to avoid damage.[51] The Convention provides a limitation for baggage and goods of 250 francs per kilogram,[52] unless a higher declaration of value was made and a supplementary sum paid.[53] The liability provisions of the Convention are limitations rather than indemnities and the damage claimed must be justified. Further, the carrier is prohibited from relieving itself of liability or fixing a lower limit than that laid down by the Convention.[54] The Convention provides that any clause in a contract of transportation and all special agreements entered into before damage occurs by which the parties purport to infringe the rules laid down by the convention are null and void.[55]

In considering the railroad as a common carrier of cargo it has been noted above[56] that the railroads' liability as insurers under the common law has been relaxed so as to permit them to establish rates based upon the declared values for baggage and express, thereby validating their liability limitation provisions. The Carmack amendment has been extended to goods shipped by motor vehicles in interstate commerce,[57] and the common carrier by water in regard to goods carried may limit its liability but only by the stipulation of value in the bill of lading.[58]

One of the ideas advanced with the object of freeing civil aviation from the uncertainties created by existing rules of civil liability is the Uniform Aviation Liability Act,[59] which if adopted by any state would apply to aircraft flying within the state. In the case of passengers and goods it would apply when the contract of carriage is made within the state. Under this uniform law absolute liability would be imposed

[47] *Id.* Art. 1.
[48] *Id.* Arts. 3-16.
[49] *Ibid.*
[50] *Id.* Art. 18.
[51] *Id.* Art. 20(2).
[52] This amounts to approximately $16.58 per kilogram in U. S. currency.
[53] U. S. TREATY SER. No. 876, *op. cit. supra* note 46, Art. 22(2).
[54] *Id.* Art. 23.
[55] *Id.* Art. 32. For an article stating that the Warsaw Convention is unfair to the air cargo shipper, see Wolf, *The Unwary Airshipper's Peril*, 20 PA. BAR ASS'N Q. (1949).
[56] *Supra* note 28.
[57] Sec. 129, Motor Carrier Act, 49 STAT. 563 (1935), 49 U. S. C. A. §319 (Supp. 1948).
[58] Harter Act, 27 STAT. 445 (1893), 46 U. S. C. A. §§190-195 (Supp. 1948).
[59] *Supra* note 35.

for loss or damage to goods, but if the value of the goods or baggage is not declared the recovery is limited to $100. Another idea advanced is federal liability legislation,[60] with the carrier having the necessity of proving non-negligence in the case of loss or damage to goods.

It is evident that there are uncertainties in the field of air cargo transportation. It is likewise evident that in every other field of cargo transportation there is uniformity. In international air cargo transportation there is the Warsaw Convention. In cargo transportation by railroad and motor carrier there is the Carmack Amendment, and in transportation of cargo by water there is the Harter Amendment. A uniform law is essential, and in view of the difficulty involved in having the various states adopt a uniform law, federal legislation is needed to settle in a uniform manner the liability questions which can arise in connection with the carriage by air of baggage and express under existing law.

[60] *Supra* note 36.

AIR CARGO ECONOMICS

JOHN P. CARTER*

From the early days of aviation, air carriers have transported property. Until about five years ago, property transportation other than mail was called "air express" and commanded premium rates. What is presently known as "air freight service" was inaugurated in the latter part of 1944. It is this present air freight service that is generally meant when the term "air cargo" is used. The differences between the present air freight and air express services are not extreme. Essentially, the air express service is intended for the movement of small shipments, and the air freight service is intended for the movement of considerably larger shipments. Twenty-five pounds constitutes approximately the breaking point between the two services. Ground handling for air express is usually somewhat more expedited than for air freight. Once turned over to the airline, both air freight and air express are likely to receive quite similar treatment. The minimum shipment acceptable for air freight is twenty-five pounds, and smaller shipments must still pay for twenty-five pounds. For such a shipment, the air freight rate will be about half the air express rate, but the air express rate will include pick-up and delivery while the air freight rate will apply from airport to airport only. Transportation of freight between city and airport will involve an additional charge of about fifty cents per hundred pounds at each terminal. For bigger shipments, the price difference between air express and air freight is still larger. For shipments of a hundred pounds or more, the rate by air freight may be no more than a third of the rate by air express and is quite often less than one-third.

I

Air freight service is presently offered by nearly every certificated domestic carrier, including several specialized freight carriers. There is also a very large competitive fringe of small, irregular operators who will haul freight by special arrangement, but who make no attempt to maintain transportation organizations.

The certificate, which is discussed somewhat more fully below, is the certificate of public convenience and necessity issued by the Civil Aeronautics Board under the provisions of the Civil Aeronautics Act of 1938. Under the terms of the Act, the possession of a certificate of public convenience and necessity is a prerequisite to operation as a common carrier for compensation or hire in commerce between the states or in overseas or foreign air transportation.[1] The Civil Aeronautics Board is empowered to issue certificates if the service meets the criteria set forth in the Act.[2]

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[1] 52 STAT. 979, 987 (1938), 49 U. S. C. §§401(21), 481(a) (1946).

[2] 52 STAT. 980, 987 (1938), 49 U. S. C. §§402, 481(d) (1946).

It is important to notice that the Act gives the Board no authority over intrastate carriers and no authority over carriers other than common carriers. The Act also gives the Board the authority to classify carriers and to exempt such carriers as it selects from the economic regulations provided in Title 4 of the Act.[3]

A very large number of operators have been classified as irregular carriers. In the summer of 1947 letters of registration were required for irregular air carriers. Rate filing and statistical reporting were also required from such lines. The definition of an irregular air carrier was not entirely clear, but it was required that there be no implication of a uniform pattern or normal consistency of operation.[4] The classification was evidently intended to include all interstate common carriers not included in the certificated group or the non-certificated cargo carrier group. The latter group is now apparently obsolete.[5] Very little is known about the operation of the irregular carriers. Even with the recently certificated cargo lines, published data are sparse, and statistical reporting techniques have not matured.

Table I shows, for the years 1946 to 1948, inclusive, the ton-miles of freight produced by sixteen certificated carriers, contrasted with those produced by nine non-certificated lines. Certain of the latter have now been granted temporary certificates. The lines included in the former group are presumably the so-called "trunk" lines, or larger carriers. The figures for the sixteen certificated carriers probably represent at least 99 per cent of all freight handled by the twenty-seven such lines, while the figures for the non-certificated carriers will understate, perhaps to a substantial degree, especially in the earlier observations, the traffic of that group. It appears that, once alive to the possibilities of air freight, the certificated lines expanded their traffic rapidly, while the non-certificated carriers have probably done little more than hold their own.

TABLE I

COMPARISON OF FREIGHT TON-MILES PRODUCED BY CERTIFICATED AND NON-CERTIFICATED CARRIERS 1946-1948

Thousands of Ton-Miles

	16 Certificated Carriers	9 Non-Certificated Carriers*
1946	18,686	25,184
1947	38,871	47,409
1948	70,438	48,115

*Includes Air Cargo, California Eastern, Flamingo Line, Flying Tiger, Mutual, Riddle, Slick, U. S. Airlines, and Willis. Certain of these carriers have now been granted temporary certificates.

Source: Hearings before the Senate Committee on Interstate and Foreign Commerce, Air-Line Industry Investigation, Part I, 81st Cong., 1st Sess. 90 (1949).

[3] 52 STAT. 1004 (1938), 49 U. S. C. §496 (1946).

[4] The definition has undergone amendment and clarification since its original publication in 12 FED. REG. 3076 (1947). The present rules appear in 14 FED. REG. 4346 (1949).

[5] The non-certificated cargo carrier classification was also established in 1947 (12 FED. REG. 3079 (1947)). These were carriers who had been operating on May 5, 1947, and had applied for a certificate of public convenience and necessity. The category was continued in the 1949 republication of the Economic Regulations (14 FED. REG. 4351 (1949)) but most carriers so classified received temporary five-year freight-only certificates in August, 1949 (American Aviation, August 15, 1949, p. 20).

The economics of air cargo cannot easily be separated from the economics of air transport. The principal business of most air carriers is the carriage of passengers. Only a few carry freight alone. Some passenger lines will operate planes fitted for the carriage of property only, and in those aircraft the freight traffic may often exceed that in other classes of property, which are conventionally classified as mail and express. Passengers' baggage is included with passengers in air transport statistics.

Table II shows the proportion of revenues which the certificated domestic carriers received from each class of traffic during a typical recent month, contrasted with the revenues received in the first three postwar years. It will be noted that while property revenues are important, it is usually the mail traffic which accounts for the bulk of such revenue. Freight revenues are generally small, but their importance is growing.

For the certificated air transport industry as a whole, however, it can be seen that passenger revenues constitute 80 to 85 per cent of total revenues. From this fact it can be expected that the prime purpose for which aircraft will be operated will be for the transport of passengers and their baggage. Under the law the post office has the right to demand the operation of flights on such schedules as it may lay down,[6] but apparently this right has been exercised but rarely.

The difficulty of extricating air cargo problems from other air transport springs from this fact that aircraft are operated primarily for passengers and secondarily for mail. But when the passengers and their baggage and the mail have been accommodated, there is often room for additional loads. This may be the situation for one or more of several reasons:

TABLE II

RELATIVE SOURCES OF REVENUE OF CERTIFICATED DOMESTIC AIRLINES BY TRAFFIC CLASSES, 1946-1949*

Traffic Class	(1) Fiscal Years ended June 30 1946	(2) Fiscal Years ended June 30 1947	(3) Fiscal Years ended June 30 1948	(4) Month of April 1949
Passengers	84%	86%	84%	81%
Express	3	3	3	2
Freight	1	2	3	4
Excess baggage	1	1	1	1
Non-scheduled transportation	†	†	†	†
Other non-mail revenue	†	1	†	‡
Mail	11	7	9	12
TOTAL	100%	100%	100%	100%
Total revenue (Millions of dollars)	253	342	387	42

*Detail will not necessarily add to totals because of rounding. †Less than ½ of 1%. ‡None reported.

Source: Columns (1), (2), and (3): ANNUAL REPORT OF THE CIVIL AERONAUTICS BOARD 50-53 (1948); Column (4): American Aviation, July 15, 1949, p. 56, and August 1, 1949, p. 55.

[6] 52 STAT. 995 (1938), 49 U. S. C. §485(c) (1946).

(1) The physical shape of an aircraft will be roughly that of a horizontal cylinder, faired in at both ends. Within the cylinder there will, of course, be a flat floor under the passenger cabin and flight deck, perhaps a fourth or a third of the distance from bottom to top of the cylinder. This leaves a number of enclosed areas unsuitable for the carriage of passengers, especially under the cabin floor and fore and aft where the fuselage is faired down. These are the areas in which baggage, mail, and other property may be stowed.

(2) Like a ship, an aircraft has limitations both on the gross weight it can lift and on the cubic capacity within the fuselage. The picturesque phrase which purports to describe the shipowner's ideal, "full and down," applies with equal force to air carriers. The most efficient load, on a purely technical production basis, is one which both fills the plane's cubic capacity and utilizes its whole weight-lifting ability. The amount of baggage and mail offered may not fully take up the capacity of the cargo pits and the lift of the plane. Hence, an ability to carry other property may remain.

(3) It may be necessary for the carrier, under the terms of its certificate, and to obtain both good utilization and directional balance of its equipment, to operate trips which are not well patronized by passengers. On such flights one possibility is to offer special inducements to passengers utilizing such trips. The midweek family plan, whereby a fare-paying passenger may take his wife and/or children at one-half the regular rate on certain days of the week, is an example of thinking in this direction. Another possibility, not necessarily exclusive of the first, is to carry property in the place of passengers. Property may even be carried in the passenger cabin. Some lines have facilitated this practice by the installation of collapsible seats.

The experience of the armed services during World War II was probably instrumental in bringing about the very large development of air cargo transportation during the postwar period. The domestic certificated carriers flew under contract to the army and gained much experience thereby. Moreover, the armed services trained a great many men in aviation. These men were usually young and very often had had no previous civilian business experience before entering the armed forces. Upon discharge, their interest and experience were focused on aviation. At the same time, large quantities of aircraft and aircraft components were declared surplus and set up for sale at very low prices. Military type transport aircraft could be bought for five to ten thousand dollars. Conversion to civilian certificated status might bring the total cost of a transport aircraft to something like twenty-five thousand dollars. Many men had accumulated considerable overseas pay and flight pay; moreover, in the economic climate of 1945 and 1946 a great deal of venture capital was forthcoming from local business interests. Hence, these prices were within reach of a considerable number of veterans. For a complex of reasons, of which undue optimism was one, but probably the inflation and lack of business experi-

ence were more important, most of these operators found themselves in financial difficulties quite quickly. At least partly as the result of this, the rates for both air freight and air express fell rapidly during the three years between 1946 and 1949.

When the air freight service was first inaugurated in 1944, the transcontinental rate was about $67 per hundred pounds. By the summer of 1947, the rate had fallen to $25, at which level it stabilized, but reductions continued to be made in the form of special rates on specific commodities.[7] By the summer of 1948, rates as low as $10.50 per hundred pounds were being quoted for the transcontinental movement of certain commodities, such as cosmetics and nursery stock in large quantities.[8] The decline in air express rates has been much less drastic. In the same period, the transcontinental air express rate has declined from about eighty-four cents a pound for large shipments to about seventy-four cents per pound.

All-cargo type aircraft will be used only on a small minority of flights, but whether passenger or all-cargo aircraft are used, the principles under which air cargo transport will be supplied will be the same: that is, the production of air freight transport will be a joint product with the production of other forms of air transport.

Because air freight transportation is produced jointly with other forms of air transportation, it is impossible to say that many specific costs are attached to the production of air freight transportation. The cost incurred will be due to the production of the agglomeration of air transportation service. The sensible way to allocate costs to a particular product in a multiproduct industry will be to ask the question, "How much would be saved if the product were discontinued?" Those costs which could be saved if the product were discontinued are the only costs which can reasonably be allocated to the product. If this question is asked in succession for each of the products produced by a multiproduct firm, the sum of the costs yielded by the answers to these questions will by no means necessarily equal the total costs of the firm. The remaining costs will be the overhead or burden costs which will not be due to the production of any particular product. Such costs can be assigned to particular products only by arbitrary methods.

If this question is asked of the air freight service of the certificated carriers, it will probably be seen that very little would be saved if the certificated carriers were to discontinue the air freight service. There would be some expenditures, of course, which would be eliminated: the advertising of air freight, the publication of tariffs, and similar matters, but almost all flights would be operated in any event to carry passengers and mail. Hence, to the certificated carriers, the cost of the air freight service is likely to be quite low. To the cargo carriers the costs of the air freight

[7] For a history of the development of air freight rates, see Carter, *Air Freight Rates*, PROCEEDINGS OF THE 22ND ANNUAL CONFERENCE OF THE PACIFIC COAST ECONOMIC ASSOCIATION 55 (1947), or Torgerson, *History of Air Freight Tariffs*, 15 J. AIR L. AND COM. 47 (1948).

[8] See, as examples, Slick Airways, Inc., Official Airfreight Commodity Tariff No. 5-B, 1st Revised page 4-D, May 2, 1949; and United Air Lines, Air Freight Memorandum Tariff for San Francisco, August 1, 1948.

service will be higher because they have no other traffic for which, if they did not render freight service, they would operate aircraft anyway.

II

There is another form of cost, however, which may be important to carriers of air freight. The cost will be measured by the loss of revenue, if any, on traffic diverted from the higher-priced air express service to the lower-priced air freight service. There is no way in which this can be measured. But as we have seen, the rates for air freight have been reduced much more drastically than the rates for air express. It must certainly be true that if there were no air freight service offered, some of the traffic now moving by air freight would nevertheless move by air express and pay substantially higher rates. There must have been some diversion from express, but clearly that has not been the main source of freight traffic. Table III contrasts the growth in air freight and air express since 1945, when separate reporting for the two classes of traffic was first introduced. It will be seen that while air freight traffic has grown many fold in both physical volume and revenue, air express traffic shrunk some 20 to 25 per cent from its peak level. Table III also shows the revenues which have been received from express and from freight traffic. It will be seen that in recent periods air carriers have been deriving somewhat more revenue from freight than from express.

Very little is known about the price elasticity of demand for various types of transport. As already pointed out, the freight service is to a considerable degree a substitute for air express service, the main differentiation lying in terms of the size of the shipment which will be carried and, to a lesser extent, in the quality of the ground service provided. It must certainly be true that the inauguration of the freight service must have caused some traffic which would otherwise have moved by express to move by the lower-priced air freight service. Nevertheless, it seems quite probable that the total revenue derived by the air carriers from the carriage of property is larger with the two present classes of service than it would have been if the carriers had continued to offer express service only. In 1948, combined revenues

TABLE III

FREIGHT AND EXPRESS TRAFFIC AND REVENUES OF CERTIFICATED DOMESTIC AIRLINES, 1946-1949

	(1)	(2)	(3)	(4)
	Fiscal Years ended June 30			April 1949 at annual rate*
	1946	1947	1948	
Express ton-miles (000's):	18,235	28,103	29,420	22,692
Freight ton-miles (000's):	5,066	22,826	53,401	114,492
Express Revenues ($000's):	7,656	11,064	9,919	7,728
Freight Revenues ($000's):	1,659	6,189	11,057	21,888

*April, 1949, traffic and revenue multiplied by 12. No adjustment is made for seasonal variation, if any.

Source: Columns (1), (2), and (3): ANNUAL REPORT OF THE CIVIL AERONAUTICS BOARD 50-53 (1948); Column (4): American Aviation, July 1, 1949, p. 48, July 15, 1949, p. 56, and August 1, 1949, p. 55.

TABLE IV

TRANSCONTINENTAL FREIGHT RATES BY THREE TRANSPORT TECHNOLOGIES, JULY, 1949

Dollars per hundred pounds

	SAN FRANCISCO TO NEW YORK				
	General 1st class traffic	Carload or planeload 1st class traffic	Minimum Wt. required for carload or planeload rate on class traffic	Carload or planeload fresh vegetables	Minimum Wt. required for carload or planeload on fresh vegetables
Air Freight	$26.00	$18.20	16,000*	$10.50	10,000*
Rail Express	15.84	11.88	13,000	5.28	13,000
Rail Freight	9.82	9.82*†	†	2.23	20,000

*Commodity rates will be provided for almost all rail carload traffic.
†No distinction between carload and less than carload rates provided on transcontinental class traffic. The distinction, if any, will be in the classification.

Source: Air rates from air carrier tariffs. Rail rates quoted by carrier traffic departments, July 29 ,1949.

from freight and express were double those of 1945, although this phenomenon is undoubtedly partly due to a growth factor. The principal analytical reason for believing that combined freight and express revenues have increased is that air freight rates are now approaching the rates for the higher quality surface transport.

Table IV contrasts the rates by air freight, rail express, and rail freight which were effective during the summer of 1949. The table sets forth the general class rates which will apply on smaller shipments of one hundred pounds or more and also the general class rate applying on carload or planeload shipments (as the case may be) with the minimum weight required to obtain that rate. The table also sets forth the carload or planeload rate on fresh vegetables as an example of the commodity rates which carriers offer.[9] It will be seen from Table IV that the margin by which air freight rates exceed surface transport rates is not extremely large and that this is especially true for general class traffic. However, the margin on commodity traffic is considerably greater. On the other hand, air freight rates are less than double railway express rates. On transcontinental shipments, air freight will ordinarily give second morning delivery while rail express is likely to take as long as until the fifth morning. Rail freight is likely to require nine or ten days for a transcontinental movement.

III

This leads us to the question of the nature of the demand for the air freight

[9] The quotation of transportation rates has become very complicated. The usual rate system contains a classification into which all commodities are fitted and then a set of class rates for all geographical movements. These rates are set up in a generally uniform and related system. Commodity rates, almost always lower than class rates, are then tailored to fit the movement of specific products between specific markets. Commodity rates are constructed on an *ad hoc* basis and do not constitute an integrated system. However, well over 80 per cent of the physical volume of rail traffic moves on such commodity rates. No precise statistics are available for either rail or air, but it is apparently true that commodity rates are moving a substantial portion of the air traffic.

service. In the simplest case where the air freight rate is no higher than the surface freight rate, shippers have nothing to lose by using the air service and they obtain speedier delivery. Moreover, for some commodities, air transport may involve simpler packaging than surface transport. Garments, for example, are hung on racks inside the aircraft while their surface movement requires folding and packing at the origin and unpacking and pressing at the destination. Garments have become a very large item of westbound traffic. But for most products, air transportation does not offer a simple substitute for surface transport at no extra transport cost. For most products air transport involves an increase in the transportation bill. The problem then becomes one of deciding which commodities are willing to pay a higher transport bill to obtain delivery at their destination in half or less of the time required by surface transportation. The value of a commodity is commonly thought of as an indicator of its ability to move by air, that is, the higher the value per pound at the destination the smaller proportion of that value will the transport charge probably be; hence, changes in the transport bill will produce only slight changes on the delivered cost of the product.[10] However, a little analysis will show that it is insufficient to use value alone as the test. There is no reason why the seller of a valuable commodity will pay a higher freight solely because it is a valuable commodity which is being shipped.

What is important in determining any transportation charge is the difference in the value of the commodity between origin and destination, and what is important in air transportation is the speed with which that difference will be eliminated. This will, of course, be the test in any high-speed, high-priced service. There would seem to be two main categories of traffic that pay a premium price for air transportation. One of these will be breakdown parts and emergency traffic, the other will consist of commodities which are in themselves perishable. The latter is fairly obvious. If lobsters are not delivered and eaten within a certain time after they are caught, they spoil and have no value whatever at any location. Cut flowers must also be delivered within a certain very limited time; otherwise they wilt and again have no value. Newspapers also, because of the perishability of news, fall into this category.

Air freight has brought about movements in perishable traffic which would not otherwise have occurred by any form of surface transport. Examples of such traffic will include orchids from Hawaii to the mainland and fresh figs from California to eastern markets. While our knowledge of air line traffic flows is quite limited, it seems probable that considerably less than half of the total air freight traffic is made up of perishable products. It was the assumption at the end of the war that perishable products would constitute the backbone of the traffic, but this assumption does not seem to have been borne out.

The nonperishable traffic offers much more challenging problems of analysis

[10] *Cf.* U. S. DEPARTMENT OF COMMERCE, OFFICE OF INTERNATIONAL TRADE, WORLD TRADE IN COMMODITIES, PART I, AIR CARGO POTENTIAL STUDIES, published at intervals since July, 1944.

than does the perishable traffic. The larger item of traffic which we have denominated as nonperishable will even include some types of agricultural products ordinarily considered to be perishable. First-of-the-season movement of products like strawberries and asparagus may very well be by air. Even though such shipments are dispatched simultaneously by rail and by air, the air shipment will reach eastern markets something like one week in advance of the rail shipment and during that period will be able to command premium prices.

All kinds of surprising products may move by air on an emergency basis. If a steamship is disabled in a foreign port because of firebox trouble, it may very well be cheaper to fly a planeload of bricks half way around the world rather than pay the wages and other overhead charges of the vessel for a month or more while those bricks are taken out by sea. Automobile and aircraft manufacturers constitute another important example of emergency users of air freight. These enterprises are essentially engaged in assembling products from many sources. It is also their policy to operate with very small inventories. Hence, an interruption in the source of supply of any component is likely to result in a complete cessation of assembly operations. When the component again becomes available, it is very common to fly it to the plant at the outset until the supply lines of surface transport are again re-established. In that way assembly can start again at the earliest possible date. These breakdown and emergency shipments will obviously be of a sporadic and irregular nature; in total, however, their movement will be substantial. They are responsible for a great deal of the apparently odd and unusual types of air cargo traffic.

The air lines would thus appear to have three basic types of freight traffic:

(1) The traffic for which they are, pricewise, a direct substitute for surface carriers.

(2) Traffic which is so perishable that if it did not move by air it would not move at all.

(3) The emergency traffic in which air service is used because it is faster than surface transport and results in net savings of some sort or other, either by commanding premium prices for early arrival or by avoiding continuing operating costs, possibly of a standby nature.

The demand for property transportation in general is probably inelastic, that is, a price increase from the present level will not result in a proportionate decline in traffic, and total revenue will be increased if the price is increased. To a considerable extent this is due to the nature of government controls over transportation prices. These controls make transportation prices more rigid over time than other prices. Furthermore, for most types of transportation rate control, there is still a residue of the old-fashioned anti-monopoly thinking which was current at the time that the Interstate Commerce Act was first passed in 1887. Such thinking conceives of the carriers as exploiting their customers and as earning excessive profits. It follows that the function of regulation is to prevent both exploitation and excessive profits by the carrier. The modern concept of the government agencies as claimant agencies

for the carriers is not very well integrated with this older notion. At any rate, it seems likely that the old notion has been and is sufficiently strong to hold rates down below the level which the carriers could charge if they were free to set their own prices without interference from either rate control or antitrust agencies. But while the market for property transport in general is probably inelastic, it does not follow from this that the market for air transportation is similarly inelastic. This is because within certain limits one transport technology can always be substituted for another.

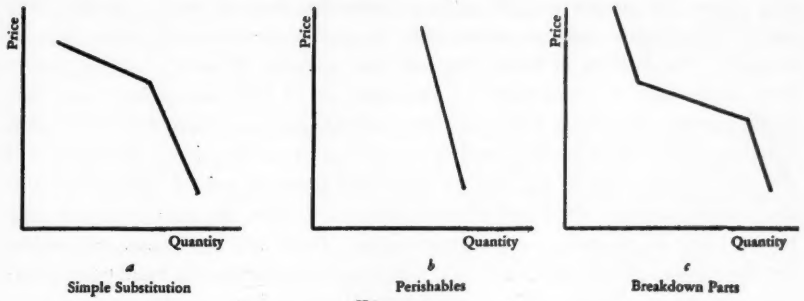

FIGURE 1

The three types of demand for air transportation which we have distinguished can be portrayed in figure 1 as *a*, *b*, and *c*, respectively. Diagram *a* represents the generalization of the demand schedule for the transport of such products as already have a price comparable with surface carriers. Diagram *a* takes the form of the conventional oligopoly solution from economic theory. Thus, a further rate reduction on a commodity like clothing probably would merely represent a sacrifice in revenue on the part of the air carrier, since air carriage is already directly competitive with surface transport. An upward price adjustment, however, is also likely to result in a loss in revenue because the commodity might be diverted back to the surface line. Diagram *b* in figure 1 represents the demand schedule for perishables. Since these must move by air or not move at all, there is no problem of substitute technologies of transport. The demand schedule for perishables is hence a simpler function than the other demand schedules. The elasticity of the demand schedule for the transportation of perishables will require research in each individual transportation market. In many markets, however, the demand is likely to be inelastic. Diagram *c* represents a generalized demand schedule for other types of air cargo. While such types probably represent quantitatively the largest amount of air transport, the demand is also the most difficult to analyze. It is portrayed here with a kinked demand schedule. At high and low prices, the demand is inelastic, while in the center it is assumed there is an elastic range. This elastic segment of the demand schedule falls in the price range of the surface carriers. Demand is elastic in this range because small price reductions by air carriers may result in large diver-

sions of traffic from surface carriers. At prices above and below that level, however, demand is likely to be inelastic. At low prices it will be inelastic because most traffic will already have been diverted to air. At high prices its inelasticity is less certain; it is clear only that it will be less elastic than in the price range more closely competitive with surface carriers.

Because, as already pointed out, the additional costs to the certificated carriers for the carriage of air cargo will be quite low, it is extremely important that the air carriers properly appraise the demand for air freight transport in order that they may obtain the greatest possible earnings from that form of traffic. In fact, it is extremely important that the carriers make an appropriate estimation of the demand in each of the markets in which they sell their services. This is, of course, a very large order since the movement of passengers or of each commodity from each origin to every destination will constitute a separate market. Nevertheless, the additional cost involved in serving any one market under *ceteris paribus* assumptions of the other markets will be very low, so low that if the price is fixed with reference to the demand schedule alone and without reference to costs, the most profitable solution is likely to be quite closely approximated. These additional costs will be low for the reasons already explained: the jointness of production on most types of air transport service. Thus, a DC-3 providing local service from San Francisco to New York may make as many as seventeen intermediate stops. In the process of providing service from San Francisco to New York that same aircraft will also provide service from San Francisco to each of the seventeen intermediate stations and from each of those stations to the further stations on along the line. Such service will be provided not only for passengers and their baggage but also for mail, express, and all the various types of commodities which move by the air freight service. Hence, a price in each of those markets based upon a proper evaluation of the demand for transport in each market will cause the flight to produce the maximum possible total revenue. If it is given that the plane is going to fly this route and make these stops because, for example, it is going to handle the mail, then the additional cost involved in serving each of the other commercial markets will be slight. For passengers, those additional costs will consist of the costs of the ticketing and of providing the passenger with meals in transit and the like; and for property, the costs will involve the costs of billing and ground handling. If clerks and ground handlers are already required for handling the mail, then the costs may approach zero. At any rate, there is no presumption that the sum of all the additional costs involved in serving these other markets will equal the total cost of flying the aircraft.

Now the purpose of the airline, assuming of course that it is operated according to ordinary business principles, will be to maximize its profits. This is not, of course, quite the same thing as maximizing its gross revenue, since maximum profits are obtained by maximizing the difference between gross revenue and total cost, but if the preceding cost analysis is accepted, maximization of gross revenue comes close to maximization of profits.

While the joint production problems of the noncertificated cargo carriers are less obvious than for the certificated passenger carriers, they still exist. Thus, intermediate points are still served jointly with terminal points on through flights; and planes that fly west must fly east again. This joint supply of directional movement has contributed markedly to the downward pressure upon air freight rates. Freight carriers have been successful in filling their planes westbound with clothing, pharmaceuticals, and a great variety of other products. Eastbound traffic has been much more of a problem, although cut flowers have constituted an important item of traffic. Rather than fly planes east empty the carriers have felt constrained to offer very low eastbound rates, since, as already pointed out, if the plane is going to fly anyway the additional cost of flying it full of revenue traffic is so slight as to be negligible.

IV

As already indicated, air transportation is regulated under the terms of the Civil Aeronautics Act of 1938. As in any industry, difficulties both of a major and minor nature abound. The major difficulties of air transportation can, however, be traced directly to the statutory provisions of the Act. Like so many regulatory acts, the Civil Aeronautics Act seeks to accomplish more than one purpose; unfortunately, those purposes are not altogether mutually consistent. Thus, the Civil Aeronautics Act contains conflicting aims. The policy of Congress is set forth in Section 2 of the Act,[11] although the six items there set forth are specifically stated as not being the only items to be considered by the Civil Aeronautics Board.

Section 2 (a) reads: "The encouragement and development of an air-transportation system properly adapted to the present and future needs of the foreign and domestic commerce of the United States, of the postal service, and of the national defense. . . ."[12] Section 2 (e) provides for "the regulation of air commerce in such manner as to best promote its development and safety. . . ."[13] Section 2 (f) provides for, "the encouragement and development of civil aeronautics."[14] Thus, the broad policy of Congress can reasonably be said to be the general encouragement of aviation in all its aspects. The more closely common carriage is approached, the greater the details of regulations specified in the Act. Thus, civil aeronautics is merely to be encouraged and developed, air commerce is to be developed and made safe by regulation, while three other parts of Section 2 of Title I and the whole of Title IV provide for the details of the regulations of carriers engaged in air transportation.

As just implied, Section 2 (b), (c), and (d), state the general nature of the regulation to be provided for air transportation. Most important for our purposes

[11] 52 STAT. 980 (1938), 49 U. S. C. §401 (1946).

[12] "Air transportation" is essentially defined as common carriage by air for such geographical operations as the Board controls, which essentially are all but intrastate. 52 STAT. 978, 979 (1938), 49 U. S. C. §401(10), (21) (1946).

[13] "Air commerce" is essentially defined as for hire carriage by air. The geographical limits are broad enough to cover practically any operation. 52 STAT. 977, 978 (1938), 49 U. S. C. §401(3), (20) (1946).

[14] "Aeronautics" is defined as the science and art of flight. 52 STAT. 977 (1938), 49 U. S. C. §401(1) (1946).

here and as an explanation of the present condition of the industry will be the policy declarations of the nature of competition to be provided in the industry. Section 2 (b) contains a reference to the fostering of sound economic conditions in the industry; (c) provides for the prevention of unfair or destructive competitive practices; while (d) calls for "competition to the extent necessary to assure the sound development of an air-transportation system properly adapted to the needs of the foreign and domestic commerce of the United States, of the Postal Service, and of the national defense."

The broad impression given by the statement of policy in the Act is that aeronautics of all sorts should be developed and encouraged but that competition, and particularly competition in air transportation, should be minimized. That impression is substantiated by the certificate requirements of Title IV. Thus far, the certificate has been the keystone of public regulation. Section 401 (a) makes the certificate of public convenience a prerequisite to operation as an air carrier in air transportation. Section 401 (d) (1) provides that the Board shall issue a certificate if it finds the applicant to be fit, willing, and able to provide the service and if "such transportation is required by the public convenience and necessity; otherwise such application shall be denied."[15] Again the presumption appears to be against the issuance of certificates and toward the minimization of competition in the industry.

In the literature of theoretical economics it is well developed that, with one exception, departures from perfect competition result in smaller output and higher prices than will be the case in a perfectly competitive market. That exception requires the existence of internal economies of scale.[16] It is difficult to be sure whether or not there are economies of scale. For technical reasons this is a point which probably can never be established, although judgment may be applied to the evidence. Most persons connected with the industry appear to doubt the existence of economies of scale. To this author, it would appear that economies of scale, if any, are slight. This will be especially true once carriers have achieved a scale of operations which produces gross revenue of two million dollars a month or more. In the absence of economies of scale, the regulatory restriction of entry provided by the sections of the Act would appear to result in minimizing the size of the air transport industry while the other provisions of the Act, especially Section 2 (a), would appear to indicate that it is the intention of Congress to maximize the size of the industry. An air transportation system adapted to the present and future needs of the foreign and domestic commerce of the United States, of the postal service, and of the national defense will almost certainly be larger than an air transportation system adapted only to the present needs of the commerce of the United States. In the political state of the world today, it is not surprising to find a great deal of our air policy justified on

[15] 52 STAT. 987 (1938), 49 U. S. C. §481 (1946).

[16] *E.g.*, JOAN ROBINSON, ECONOMICS OF IMPERFECT COMPETITION 154 (1946). Miss Robinson argues that economies of scale are a necessary but not sufficient condition, and that scarce factors for which the monopolist does not have to pay full rent (*i.e.*, pays them less than they would earn in a competitive market) are also a requisite condition.

national defense grounds, especially when questions of subsidy and other government benefits to the air carriers arise.

The provisions of the law seem particularly inconsistent if the air carriers are looked upon as a sort of civilian reserve of the air force which may be diverted from domestic civilian commerce to support the operations of the armed services in time of war. In time of war, the domestic commercial requirements upon all forms of transportation will be much greater than in peace time; hence, a domestic transportation system properly adapted to the needs of the national defense must be large enough not only to handle wartime commercial business, but also to serve as a reserve to the armed forces. Hence it follows that for national defense purposes and to serve the future needs of the commerce of the United States, a continuously larger air transportation system must be maintained than will be supported by the present commercial market alone. The requirement of a certificate of public convenience and necessity does not, of course, make it completely impossible to maintain such an oversize air transportation system with a limited number of operators. Nevertheless, it seems likely that the elimination of the certificate as a prerequisite to operation would result in the operation of more air transportation service, at the same mail bill, than is the case with the existing certificate requirements.[17]

Because the Civil Aeronautics Act of 1938 was borrowed, at least in part, from the regulatory acts for other technologies of transport, it follows that certain of the problems arising in the administration of the Civil Aeronautics Act are common to those others. For example, how may the public convenience and necessities be established? It is undefined in the Act. In ordinary business operations it is usually assumed that a business which is able to remain in existence, that is, avoid bankruptcy, must be providing a service or product which the public considers necessary and hence is willing to pay for. The monopoloid characteristics of the certificate coupled with the flexible mail pay provisions discussed below make this ordinary test not very well applicable to air transportation. And because air transport is a new technology there is not even a historical reference which administrators may utilize as a guide to indicate public requirements. Decisions as to whether a particular service is warranted or not must be made largely in a factual vacuum.

The certificate requirement has been rather liberally administered and has resulted in an oligopoloid situation in air transport. Between any pair of cities there are usually as many or more air carriers than there are rail carriers. Table V shows

[17] Some demonstration of this point appears to exist in the Los Angeles-San Francisco market. The Los Angeles-San Francisco market is one of the few large intrastate transportation markets in the country. Several noncertificated carriers provide services in that market, in addition to the services provided by the certificated carriers. The noncertificated carriers offer fares approximately half those of the certificated carriers. Because the fares of the noncertificated carriers are not very much above rail coach fares, it is obvious that there is a good deal more air traffic than there was before the operation of these noncertificated carriers. Nevertheless, the certificated carriers do not appear to have reduced the number of flights which they have offered since the inauguration of service by the noncertificated operators. Hence, in one of the few large markets in which there is no restriction of entry, considerably more air transportation seems to be provided than would have been provided by the certificated carriers operating alone.

TABLE V

NUMBER OF AIR* AND RAIL CARRIERS SERVING† SELECTED TRANSPORTATION MARKETS, JULY, 1949

Market	Air Carriers	Rail Carriers
San Francisco-Los Angeles	4	1
San Francisco-Portland	2	1
San Francisco-Chicago	3	3
Los Angeles-Chicago	3	3
Seattle-Chicago	2	3
Chicago-New York	4	5
Chicago-New Orleans	2	2
New York-Boston	3	1
New York-Washington	3	2
New York-Miami	2	2

*Certificated carriers only. †Defined as through plane or train service.
Source: OFFICIAL AIRLINE GUIDE (August, 1949), and OFFICIAL GUIDE TO THE RAILWAYS (August, 1949).

selected pairs of cities and contrasts the number of air carriers with the number of rail carriers, the test in each case being the existence of through aircraft or through rail cars. But while new routes have been extended fairly liberally, the Board has been somewhat reluctant to permit new management to enter the air transport industry. Most new routes have been granted to the grandfather carriers already operating as of the cut-off date in 1938. Only rather recently have new firms been allowed to enter the industry. These firms have been awarded temporary certificates to operate the so-called "feeder" services,[18] or freight only services. The freight carriers were essentially certificated by the "grandfather" technique. Only lines engaged in certain operations prior to May 5, 1947, were allowed to apply for certificates.

These recent decisions have brought some new management into the industry, but that new management has had to operate under rather considerable handicaps, especially the limitations upon operation which restrict the room for management judgment in the type of service to be offered and the frequency of that service, but even more importantly by the temporary nature of the certificate. The Board has already refused to continue the certificate of one feeder carrier, awarding it sufficient retroactive mail pay to permit it to liquidate without loss to creditors or investors. The uncertainty of the duration of the certificate, however, makes it difficult for management to plan ahead and to raise new capital.

The qualitative requirements on management ability represent another problem. Taken together, sections 406(b)[19] and 1002(e)[20] conceive that total air carrier revenue, mail and commercial, shall suffice to permit the air carrier to maintain and

[18] "Feeder" services are not always easily distinguished from other types of air tranport service. Their essential characteristics, which many of the so-called "trunk" carriers also possess, will be regional service and fairly frequent stops. It is also conceived that feeder carriers should run at least two trips a day over each route, while no such service limitation is imposed upon trunk carriers. A more useful distinction is negative: feeder services will not operate transcontinentally or on the other main traffic routes.
[19] 52 STAT. 998 (1938), 49 U. S. C. §486 (1946).
[20] 52 STAT. 1019 (1938), 49 U. S. C. §642 (1946).

develop its air transportation service under honest, economical, and efficient management. No statutory test for management ability is provided. Under any circumstances it is extremely difficult to evaluate management, and the Civil Aeronautics Board does not appear to have undertaken to do so on any very detailed basis. Management authority, however, is substantially circumscribed by other provisions of the Act, and even apart from the mail pay provisions of the Act these other provisions might suffice to discourage management from very strong efforts at efficiency or economy. These other provisions of the Act include rate and route control. The Board has plenary rate control. Although rate suspension periods are limited to 180 days,[21] this six months' time lag, the expenses of a hearing in Washington, and the possibility of denial, all serve to discourage management from rate and fare experimentation. Route control is, of course, provided by the certificate requirement, but it has often been the practice of the Civil Aeronautics Board, under the provisions of section 401(f),[22] to establish various limitations upon such route certificates as are issued. Restrictions may include the prohibition of local flights along the most heavily traveled segments of the route, thus requiring the carriers to operate flights from more distant points with light loads; the requirement that all flights stop at every intermediate point, regardless of whether or not there is traffic to be embarked or disembarked at that point; the prohibition of nonstop flights over main segments of a route; and the prohibition on the carriage of passengers between adjacent local stations, hence reducing the load factor if seats are available between those stations. Such restrictions serve to prevent management from operating at its most economical and efficient level.

The mail pay provisions of the Act provide the Board with a set of problems somewhat different from those provided in typical public utility regulations. All certificated carriers except the freight-only group carry mail and receive mail pay. Although technically mail pay is not provided retroactively to make up deficits, if carriers can keep active applications for increased mail pay on file, deficits can be made up by such retroactive allowances.[23] This possibility, of course, reduces management's incentive to conduct the most profitable possible commercial operations.

The statute provides a number of guides for the making of mail rates.[24] Important among these is "the need of each such air carrier for compensation for the transportation of mail sufficient to insure the performance of such service, and, together with all other revenue of the air carrier, to enable such air carrier under honest,

[21] 52 STAT. 1019 (1938), 49 U. S. C. §642 (1946).

[22] 52 STAT. 988 (1938), 49 U. S. C. §481 (1946).

[23] That mail pay cannot be made retroactive to time periods before the carrier filed for a rate increase was established in Transcontinental and Western Air v. Civil Aeronautics Board, 336 U. S. 601 (1949). Any of a very substantial number of proceedings could be cited as examples of the usual technique for fixing mail rates, which is to continue a temporary rate almost indefinitely, with occasional additional payments to make up such deficits as the carrier may have incurred. Several of these have been summarized by the chairman of the Board in recent congressional hearings. *Hearings before the Senate Committee on Interstate and Foreign Commerce, Air-Line Industry Investigation*, Pt. 1, 81st Cong., 1st Sess. 15-26 (1949).

[24] 52 STAT. 998 (1938), 49 U. S. C. §486(b) (1946).

economical, and efficient management, to maintain and continue the development of air transportation to the extent and of the character and quality required for the commerce of the United States, the Postal Service, and the national defense." From this it follows that the earnings of the air carrier in the commercial market will affect the rate of mail pay. If carriers fail to exploit the commercial markets to the full, they are not subjected to the usual business penalties of reduced earnings and/or bankruptcy, but may merely obtain larger mail pay. Furthermore, it may very well be easier to cajole the Civil Aeronautics Board into granting the higher mail pay than to make the careful studies, market analyses, experimentation, and sales effort necessary in order to obtain maximum revenues from the commercial market.

The air carriers have made only limited efforts to establish rate structures that will maximize commercial revenues. The air lines have made considerably more progress in adjusting their rate schedules to the individual markets for freight traffic than they have in passenger traffic.

If one assumption is granted it can be easily demonstrated that it is socially more desirable for an air carrier to price individually in each market rather than to rely on a generalized, uniform, and formal price structure. It is clear, of course, that individual pricing will yield a larger total revenue. The necessary assumption for this argument is that if the carrier charged a uniform price, total revenue would be insufficient to cover total costs, and then either one of two things would occur:

(1) The carrier could not afford to provide the service at all; or,

(2) Substantial subsidies would be required to make up the deficit.

In the institutional situation of the air carriers, the latter is obviously the case. Granted the assumption that uniform pricing will not permit the carrier to survive on its commercial revenues alone, then the carrier must obtain its revenue either through:

(1) individual pricing in the commercial markets; or,

(2) increased mail payments.

Now it can be demonstrated that the former is the socially more desirable technique. If a separate price is charged in each market, according to what the traffic will bear, then those who use the service still have a choice as between using or not using the service; if they use the service they obviously feel that they are better off than if they had not used the service, since they are not compelled to use it. Clearly, nobody buys any goods or services unless he feels that by so buying he is better off than he would have been if he had not bought. On the other hand, a government subsidy, whether it be in the form of mail pay, a direct recognized subsidy, or the provision of airport and navigational facilities, falls upon persons who have no choice in the matter. Government funds can come from only two sources: taxes and deficit financing. If taxation is the technique, tax payers, of course, would have no choice but to pay the taxes required. If deficit financing is the technique adopted, it will probably, although not quite certainly, be reflected sooner or later in higher

prices generally, again a matter on which citizens have no choice. Proper pricing in the commercial markets, that is, pricing to maximize revenue, might not necessarily eliminate the need for subsidy, but it would certainly serve to minimize that need, and hence to leave more choice for the community.

The present formal rate structure, rather than a rate structure keyed to demand, has been encouraged by a sort of *mystique* of the Board, which leads the Board to the position that price should be related to cost, and apparently fully allocated average cost.[25]

While it seems clear that congressional policy intends to maintain an air transport system larger than would be supported by the commercial market alone, the problem of how much larger has not yet been solved. Present policy, which is to pay the four largest carriers a rate for the carriage of mail much below that paid to the other carriers, leads to the concentration of excess capacity along certain routes. Thus we find between the main markets where traffic volume is always large, that even though a large number of flights are operated, those flights maintain relatively good load factors, while in the smaller markets the load factor is much poorer. Essentially it is on the north-south routes (except Eastern Air Lines) that the high mail pay and excess capacity is concentrated, while the transcontinental lines obtain better load factors. It would appear that airline capacity has not been produced on those routes which most need it.

TABLE VI

CONCENTRATION IN AIR TRANSPORT MEASURED BY SHARES OF INDIVIDUAL CERTIFICATED CARRIERS IN INDUSTRY TOTALS, APRIL, 1949

Carrier	(1) % of Total Rev.	(2) Cumulated % of Total Rev.	(3) % of Freight Rev.	(4) Cumulated % of Freight Rev.	(5) % of Pass. Rev.	(6) Cumulated % of Pass. Rev.	(7) % of Mail Rev.	(8) Cumulated % of Mail Rev.	(9) Freight Ton-miles % of Total	(10) Cumulated % of Freight Ton-miles
1 American....	21	21	31	31	21	21	9	9	34	34
2 UAL.....	17	38	22	53	17	38	11	20	23	57
3 Eastern.....	16	54	10	63	18	56	6	26	12	69
4 TWA.....	13	67	14	77	13	69	10	36	13	82
5 Capital.....	6	73	8	85	5	74	6	42	7	89
6 Northwest...	5	78	6	91	5	79	5	47	5	94
7 National....	4	82	2	93	3	82	11	58	1	95
8 Delta.....	3	85	2	95	4	86	2	60	2	97
9 Braniff.....	3	88	1	96	3	89	4	64	1	98
10 C & S.....	2	90	1	97	2	91	3	67	1	99

Source: Columns 9 and 10: American Aviation, July 1, 1949, p. 48 and July 15, 1949, p. 56. Other columns: Calculated from American Aviation, July 15, 1949, p. 56, and August 1, 1949, p. 54.

Table VI reveals something of the nature of the concentration in the air transport industry. The ten largest certificated carriers are presented in rank order by total revenue for April, 1949. As of April, 1949, there were twenty-seven certificated domestic carriers in operation. The all-cargo carriers are not included in these figures, since

[25] *Air Freight Rate Investigation*, 9 C. A. B. 340, 344, 348 (1948).

they were not certificated until August, 1949. Three of the top four lines are transcontinental carriers. It will be seen that in terms of both freight revenue and volume, the ten largest carriers account for almost the whole of the industry total, while their passenger revenues exceed 90 per cent of the industry's. Even more apparent is the concentration in the six largest carriers, who handle more than 90 per cent of the freight business and almost 80 per cent of the passenger business. The six largest carriers obtain less than half the mail revenues, however, and the ten largest only two-thirds. The cargo carriers do not transport mail and hence receive no mail pay. From this it follows that most freight business is being conducted by lines which receive relatively little or no mail pay. The argument that freight transportation is subsidized by mail payments can thus be laid at rest, or at least restated in a modified form: freight transport is subsidized less than other classes of air traffic.

V

In air transport, as in any new industry, the evidence is not always sufficient to permit wise judgments of public policy. Certain conclusions do emerge, however:

(1) Airline managements do not price their services in a businesslike manner. In part they are discouraged from so doing by the Civil Aeronautics Board, whose generosity with Post Office funds removes the ordinary penalty for unbusinesslike behavior: bankruptcy. The Board also often undertakes such detailed supervision of management as to discourage initiative.

(2) Air freight has grown rapidly, stimulated in considerable part by the independent operators who entered the industry after the war under the exemptions established by the Board. Essentially they set the pace in exploiting an elastic demand, and the then certificated (passenger) lines followed. The carriers who transport nearly all the freight, however, receive either no mail pay or the lowest rate of mail pay; hence the freight traffic can be said to be less subsidized than other classes of air traffic.

(3) For the passenger and mail lines, air freight is a by-product resulting from the physical nature of the aircraft and the nature of their operation. For any going air line, the sale of air freight service in any market can be treated as a by-product of its sales in other markets.

(4) The important matter of the wisdom of the certificate requirement cannot be firmly evaluated at present. If there are no economies of scale, then the way to maximize the size of the air transport industry will be to abandon the certificate and open entry to the industry to all on equal terms. Evidence on the existence of economies of scale remains inconclusive.

(5) The basic difficulties of the industry and its regulation spring from conflict in congressional policy: the concurrent expansion of the physical size of the industry and the restriction but not elimination of competition within the industry.

STATISTICAL CONTROLS AND THE REGULATION OF AIR CARGO

MARC J. FELDSTEIN*

I

STATISTICS AS A REGULATORY DEVICE

The functioning of a regulatory agency is increasingly dependent upon adequate statistical work by its staff. The broad trend of social and economic legislation which was gaining momentum since the last quarter of the nineteenth century required factual information regarding economic problems. Economics was emerging from the era of descriptive "philosophic" essays into the "scientifically" objective era of quantitative studies, with mathematics and statistics becoming the chief tools of investigation. The quest for facts became a strong drive, permeating practically all facets of economic legislation. The courts were attuning themselves more and more to the importance of reliable factual data as the basis for decisions. The "Brandeis" way of preparation of cases for litigation and of brief-writing took a strong hold on a substantial proportion of lawyers. The administrators of the numerous regulatory commissions required factual materials as the basis to place their actions above the level of "capriciousness" and "arbitrariness" on the one hand, and on the other hand to give their actions the stamp of the new respectability.

Ideally the work of a statistician in a regulatory agency begins when a need has arisen to find an answer to the question: what is wrong with a given situation—*i.e.*, definition of the problem situation, its scope and significance. Then follows the question: what do we need to know to work out some means of solving the problem—*i.e.*, development of the factual basis of data pertinent to the problem. Then several alternate plans are formulated and statistics are relied upon to evaluate the probable end-results of each of the alternative solutions. After the "best" plan is decided upon, a directive is formulated to put it in operation. The job of a statistician up to that point is only half done. The statistician must develop a system of continuous check on the working out of that directive, that is, means of continuous control of the operations under that directive. And finally, he must make provision for periodic evaluation of the results of operations in terms of their achieving the desired ends.

The statistician is not a policy maker. He is a tool of an administrator, who in turn works within the framework of the broad objectives laid down by the specific organic acts passed by the legislature. At the time organic acts for establishment of

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a given regulatory agency are passed by the legislature, the factual basis is practically never complete enough to allow the legislators to spell out the details even if they wanted to do it. Some definite guides, however, to this spelling out are, as a rule, stated by the legislature.[1]

Regulatory agencies are created to cope with the fast-growing facets of our economy. The statement of policy in the organic act usually includes some broad provision for use of political judgment—"informed judgment" on the part of the regulatory agency, such as, for instance, considerations of "public interest" or "public convenience and necessity." In addition, the legislature not only sets out general standards but also leaves room for defining by the regulatory agency of administrative standards which will allow the parties subject to regulation to know in advance what they can or cannot legitimately do. Such legislative and administrative standards may be in parts procedural in nature, in parts, substantive and statistical.[2]

II

THE GROWTH PATTERN OF AIR TRANSPORTATION

The problems in a growing industry change with time. In air transportation these changes were best characterized by the developmental transition from the simple formative period of the Thirties to the complex struggles of the late Forties. During the Thirties the major problems of air transportation were the need for expanding geographically the infant industry, for stabilizing it on sounder financial grounds, for developing operating patterns, and for experimenting with practically all aspects of operating routines. There was abundant room for growth and development of individual carriers. The carriers needed subsidy to get established in the field; they needed a network of routes; they needed simple regulatory patterns to facilitate operations; they needed simple guidance. The present pattern of air transportation in the United States is a result of rapid extension of routes and expansion of carriers' systems, which systems grew more or less by their own impetus. The carriers, in competition with one another, tried to establish and strengthen their strategic position in the national economy to the best of their abilities. True, there were checks on these expansions, there were administrative acts and pressures enacted to channelize their development to serve "public interest" and "public convenience and necessity," but these checks, administrative acts and pressures, spread over the last ten years, do not fall into a consistent pattern focused on the development of an industry.[3]

[1] It was a failure to spell out sufficiently definite guides, of course, which led to the termination of the National Industrial Recovery Act, 48 STAT. 195 (1933), as amended.

[2] Perhaps the most significant administrative standards of this character were those of the Office of Price Administration. See DAVID F. CAVERS, ET AL., PROBLEMS IN PRICE CONTROL: PRICING STANDARDS (HISTORICAL REPORTS ON WAR ADMINISTRATION, GEN. PUB. NO. 7, 1947); NATHANIEL L. NATHANSON AND HAROLD LEVENTHAL, PROBLEMS IN PRICE CONTROL: LEGAL PHASES (HISTORICAL REPORTS ON WAR ADMINISTRATION, GEN. PUB. NO. 11, 1947).

[3] See Sweeney, *Policy Formation by the Civil Aeronautics Board*, 16 J. AIR L. AND COM. 127, 147 (1949); Westwood, *Choice of the Air Carrier for New Air Transport Routes*, 16 GEO. WASH. L. REV. 1, 159 (1947-1948).

Recently new and dynamic factors have entered into the air transportation picture which profoundly affect regulatory needs.[4] Among these factors are the postwar expansion of capacity, the development of new plane types, the challenge of "air coach" operations from the irregular passenger carriers and from some of the established carriers as well, increased competition from fellow grandfather carriers, diminution of the proportion of mail payments in the total revenue of carriers until recently, and, most of all, the startling rise of the independent all-cargo carriers. Moreover, the cargo picture is not a simple one in as much as some of the mail-passenger carriers have transported volume amounts of freight, and in recent months one such carrier has become the principal mover of this type of traffic.[5]

These facts raise difficult problems with respect to the administration of air mail subsidies, for which domestically only the certificated passenger carriers are eligible.[6] The extent to which these carriers may use funds received from the government to offset possible losses from air freight remains an unsettled issue. This issue is made all the more difficult to resolve because of (1) the grandfather carriers' historical reliance on subsidy and their determined effort to block the determination of "joint costs," and (2) the fact that competing independent freight carriers have no subsidy backlog on which to rely. Obviously the second of these factors must and has received consideration by the Civil Aeronautics Board, but any final determination not to consider the *over-all* financial needs of passenger carriers is a step that may not be taken lightly.

III

BASIC REPORTING NEEDS[7]

It is in this context that we face the problem of the statistical needs of the regulating agency, particularly with respect to the impact made upon the industry by the growth of air cargo. If at the outset we are to assume that the information requirements of the agency are now the same simple ones that existed in the formative period of the Thirties, a subsequent Board attempt to develop a rational air transport system may well be hindered by its own reporting devices.

The history of CAB statistical procedures has a bearing on the problems now at hand. Under the Civil Aeronautics Act of 1938, the agency had been granted rather broad powers to prescribe a reporting system for the carriers. This reporting system was intended to yield data for the carrying out of regulations. The reporting sys-

[4] This was emphasized by the Task Force Report on Regulatory Commissions (Appendix N), prepared for the (Hoover) Commission on Organization of the Executive Branch of the Government, January, 1949, at page 74.

[5] Recent recurrent monthly reports of the Civil Aeronautics Board show that American Airlines freight traffic is now greater than that of Slick Airways, the largest of the independent cargo carriers.

[6] The tentative opinion of the Board in the *Air Freight Certificate Case*, Docket No. 810, makes no provision for subsidy for the independent freight carriers, and none of these carriers has as yet seriously proposed that subsidy be granted it. Order Serial No. 2759, April 25, 1949.

[7] In the following discussion we concern ourselves with the thought patterns underlying the statistical design of CAB statistics, rather than the details of statistical forms, definitions, etc. Given an adequate framework, the craftsmanship of a statistician will take care of technical points.

tem in operation between 1938 and 1946 was adapted from the system for reporting on mail operations on a post-audit basis employed by the Post Office Department, which had jurisdiction over air mail. The system centered upon the chief interest of the Post Office—namely, the cost of carrying mail to be defrayed by the Post Office Department. With the mail rates having become the vehicle of underwriting the operation of the carriers under the Act of 1938, the salient points of the reporting system did not have to change too much. The determination of the mail rate, based on the need of the carrier, continued to be the center of emphasis; while the industry continued in its infancy, the reporting system carried over from the Post Office appeared to serve reasonably well.

By 1945 its inadequacies became sufficiently pronounced so that a basic revision and extension of the reporting system was undertaken by the CAB's Bureau of Economic Regulation, with the cooperation of a committee appointed by the Air Transport Association of America, the trade organization of the established mail-passenger carriers. This revision, entitled a "Uniform System of Accounts for Air Carriers" (Form 41), was put into effect on January 1, 1947. It extended the scope of reporting, sharpened the definition of accounts, improved substantially the workability of the system, and made it better adaptable to the needs of the regulatory process. The exhaustive work on revision of the system was a significant attempt to introduce uniformity into the reporting of the different carriers, thus making the data in these reports comparable among the carriers as well as among the different periods. The reporting system has remained, however, essentially a retrospective post-audit system. The need for further revision of the reporting system has been voiced by the CAB staff, and by other agencies concerned with air commerce. But the pressure of other work and the tremendously time-consuming process of clearance of such a basic revision delays the undertaking. Meanwhile, the present design is expanded, revised, and made to serve the needs of the CAB as well as it can.

The present reporting system necessarily requires staff work to be conducted along certain narrow lines. In order to determine the reasonable mail rates for the future, which are the only kind of worth while "permanent" mail rates prescribed by the Board, past operations are analyzed to determine if management has been operating "honestly, economically and efficiently."[8] Lacking the background of broad economic analyses and time and motion studies, the CAB staff takes recourse in the method of comparison between the detailed expenditures of a group of more or less similar carriers to establish some group norms of "efficiency of operations." Serious deviations from such group norms may result in disallowances of particular expenditures for mail rate purposes. These disallowances are intended to protect the interests of the government by cutting down the extent of subsidy and also to aid industry in getting on an even keel by attracting attention of the individual carriers to excessive expenses or inefficient patterns of operation. Projections of these results and trends based on these post-audits are among the factors used for fixing future mail rates.

[8] See Transcontinental & Western Air, Inc. v. Civil Aeronautics Board, 336 U. S. 601 (1949).

Necessarily a reporting system of this character leads to preoccupation with the "efficiency" of management. The Board finds itself in this anomalous position: "efficiency" of a given carrier is ascertained by comparison of its past operating results with the past results of some comparable carriers. The method of determining efficiency thus fits snugly into the system of post-audit reporting. But in recent times the differences in the "efficiency" of carriers' operations were growing smaller, because of the growing standardization of patterns of operation, thus cutting the ground from beneath the preoccupation with "efficiency."

Far more attention needs to be directed toward the issue of whether a carrier's operations are "economical" in the language of Section 406(b) of the Civil Aeronautics Act.[9] In one of the most significant addresses of recent years, Chairman O'Connell has stated the question in this form:[10]

> The words "honest, economical and efficient" as used in Section 406(b) are usually spoken in one breath and it is a little difficult to differentiate between at least the last two. To my mind, the word "efficiency" represents a concept of output relative to input. This would be judged primarily by the amount of transportation produced by a given number of employees, the amount of transportation which can be generated by a given amount of capital applied to the business, etc. On the other hand, "economical" connotes for me the questions of whether or not the carrier and the carrier's management arrive at decisions which make reasonable economic sense. For example, are they offering an amount of capacity which is based on reasonable levels of demand or are they offering capacity which is far in excess of that demand. Is their pricing, that is their rates and fares for the carriage of passengers and property, so designed as to maximize their revenues and their profits or are they established with no clear objective in mind and allowed to drift along as best they may.
>
> To me the word "economical" implies an ability to plan sufficiently far in advance as to be prepared to meet the contingencies of both operations and traffic at the time that they may arise, granted, of course, that no forecasting or planning can be perfect. An economical management is one which would exercise a reasonable care and prudence in terms of the financial plans that it worked out. These plans should take into consideration the basic nature of air transportation and the possibility, if not probability, that the industry and the particular carrier concerned will be faced sooner or later with difficult periods during which the impact of a heavy debt structure and related fixed charges will be particularly onerous, perhaps crushing.
>
> I am not sure that some of our air carriers have an economic management, using the term in the sense of the word just discussed. . . .

This indicates at least the position of the present Board Chairman that individual carriers, in order to satisfy the statutory test of "economical" management, should formulate long-range plans which recognize the growth and development factors of their own systems as well as of the industry. But this places no lighter burden on the Board; on the contrary, this conclusion makes it imperative that the Board formulate a comprehensive plan for air transportation which would encompass not

[9] 52 STAT. 998, 49 U. S. C. §486 (1946).

[10] *Air Mail Pay Under the Civil Aeronautics Act of 1938* (an address before the Association of the Bar of the City of New York, March 23, 1949).

only the growth and development of each diverse part of the industry but also that of the industry as an entity.[11] Without such a plan, "regulation" in the sense contemplated by the Civil Aeronautics Act is well nigh impossible.

But the "economical" test is difficult to make with only past results of operations to examine. Economic planning of future operations is essentially a matter of managerial policies which determine the future operations. It is in this framework that the desirability for "prospective" reporting, in addition to "retrospective" reporting, becomes apparent. If it is posited that the operations of a given carrier must be viewed and analyzed in the context of the entire industry; if the stress in the evaluation is to be divided between the analysis of the actual operations and that of managerial policies; and if we are to view air transportation as a genuine "growth industry" which expands and creates new patterns—that is, such patterns which cannot be explained merely as expansion or continuation of old patterns—then the need for prospective reporting and the limitations of post-audit reporting become obvious.

By prospective reporting is meant the submission of statistical data by the carrier estimating the salient facts of operations during a future period, say, a year. The carrier should be required to submit every quarter its estimates for the following year, correcting them as the need arises. Thus, CAB would have in its files a complete forecast by the carrier of the traffic and cost data; data on equipment and its utilization; data on financing of operations; and reflection of the effect of handicaps and atypical situations as they are evaluated and felt at the time of their occurrence and in successive periods. In contrast, the present reporting system used by CAB is based squarely on the traditional notions of accounting. When the problems get out of the rather rigid area of "taxing, credit and legal purposes,"[12] and when this system attempts to meet wider requirements of economic planning and policy making, its shortcomings appear.

Prospective reporting will become a definite deterrent to the present widespread practice of making *ad hoc* estimates and claims for separate proceedings—estimates and claims, frequently of a contradictory nature, fitting the carrier's advantage in a particular proceeding. In addition to this worth while deterrent, prospective reporting will allow direct comparison between planned and actual operations, thus raising danger signs whenever the operations do not work out according to plan. Prospective reporting greatly facilitates the managerial control of operations and tends to instill in the management the attitude of critical self-evaluation. It tends to simplify and make more effective the administrative and regulatory process by supplying crucial

[11] The Report to Congress on Regulatory Commissions by the (Hoover) Commission on Organization of the Executive Branch of the Government sets out the following conclusion under the heading *What Is Wrong with Independent Regulatory Commissions:*

"The quantity of work in the regulatory field at the top level has been so great that the commissions have often neglected their promotional and planning functions." A REPORT TO THE CONGRESS BY THE COMMISSION ON ORGANIZATION OF THE EXECUTIVE BRANCH OF GOVERNMENT 4 (March, 1949).

[12] Readers are referred to BILLY E. GOETZ, MANAGEMENT, PLANNING AND CONTROL (1949), particularly chapter 12, for a penetrating discussion of the relation of statistics to managerial control.

data in a timely manner. In the analysis of interaction among carriers in terms of a comprehensive plan for air transportation, prospective reporting will give the CAB a means of anticipating difficulties and the need of regulatory or corrective action, on a preventive rather than a curative basis. Under present circumstances, the Board must wait until the problem situations are brought to its attention, thus reducing itself to the position of an umpire rather than that of a planner of air transportation on a national scale.[13]

The power of CAB to require prospective reporting can hardly be questioned in principle. The inclusion of some specific details may be objected to by the carriers, but the substantial advantages which would be derived from instituting the system of prospective reporting so far outweigh the difficulties of its installation, that one is surprised that this reporting pattern has not been consistently employed by the Civil Aeronautics Board.

The changing influence of mail revenues[14] and the growing impact of revenues from cargo have already been suggested. Quite apart from the merits or demerits of prohibiting the use of subsidy to offset freight losses,[15] or the extent of that use, one thing does seem clear. The Board should be sure that the statistical materials compiled by its staff will squarely face the problem of joint costs and show the cost of carrying either freight, express, mail, or passengers, for in the absence of quantitative data the decision on the merits otherwise will be made on the basis of conjecture and emotion.

Obviously the impact of the air freight "industry" or sub-industry upon air transportation will go far beyond the matter of statistical procedures. It may well be that one impact will be the realization that the simple *ad hoc* approach to air transportation problems, perhaps necessary and valuable in an earlier period, has outworn its usefulness.[16] This conclusion will be most difficult to escape once it is assumed that the prime regulatory responsibility is the fitting of diverse parts into a rational total pattern of air transport. Not only does intelligent administration of air mail

[13] See Durham and Feldstein, *Regulation as a Tool in the Development of the Air Freight Industry*, 34 VA. L. REV. 769, 808 (1948); see also Sweeney, *Policy Formation by the Civil Aeronautics Board*, 16 J. AIR L. AND COM. 127, 147 (1949).

[14] According to the recent Report on Air Mail Subsidy of the House Committee on Post Office and Civil Service, mail pay represented 37.8 per cent of all operating revenues in 1938 but only 7.7 per cent in the first nine months of 1947. H. R. REP. No. 1958, 80th Cong., 2d Sess. 2 (1948). In the case of five carriers—Braniff, American, Delta, Eastern, and National—the 1947 proportion of revenues from mail pay was 4 per cent or less. *Id.* at 41.

[15] The Task Force Report (Appendix N) on Regulatory Commissions prepared for the (Hoover) Commission on Organization of the Executive Branch of the Government took the position that "mail rates should no longer include any need or subsidy element but should be based on the service rendered. They should reflect a fair allocation of costs between mail, passenger, and freight services." THE TASK FORCE REPORT (APPENDIX N) ON REGULATORY COMMISSIONS 77 (January, 1949).

[16] The criticism of the (Hoover) Commission on Organization of the Executive Branch of the Government contained in the report on the regulatory commissions is pertinent:

"The chief criticism that can be made of the regulatory commissions is that they become too engrossed in case-by-case activities and thus fail to plan their roles and to promote the enterprises entrusted to their care. Typical of this is the attitude by which the Civil Aeronautics Board and the Interstate Commerce Commission have approached the problem of building a route structure for the Nation." REPORT, *op. cit. supra* note 11, at 15-16.

subsidies require reporting of this character, but also it is the *sine qua non* for integration of the new cargo carriers into the air transport system and for the evaluation of each carrier's place in any regulatory design for the industry.

IV

CONCLUSION

The Civil Aeronautics Board recently has been under attack in Congress,[17] in the courts,[18] and in the press.[19] It may well be that revision of CAB statistical procedures and objectives to recognize the emergence of air cargo and other new factors in air transportation would gain added and deserved respect for the Board, in spite of the obvious short-run difficulties in taking such a step.

Revision of statistical procedures would appear to be a condition precedent to the recognition of new facts in air transport. This change in regulatory approach should make possible the development of affirmative administrative standards and the rejection of *ad hoc* determinations with their many inconsistencies. Unlike the past, decisions rendered in this setting would have real value as precedents for future Board action.[20] Such procedures might well serve as an indication to Congress that monies appropriated for air mail subsidies would be employed in an orderly fashion. Now that the Board finds itself a party to an increased amount of litigation, it may find its position enhanced by a more consistent approach to air transportation. Moreover, reporting changes of the character here discussed would be an additional step toward making the industry aware of the Board's active responsibilities under the Civil Aeronautics Act.

[17] Most important have been the recently completed hearings of the Senate Committee on Interstate and Foreign Commerce under the chairmanship of Senator Edwin C. Johnson of Colorado. See also H. R. REP. No. 1958, 80th Cong., 2d Sess. (1948) *passim*; H. R. REP. No. 1242, 80th Cong., 2d Sess. 5 (1948); H. R. REP. No. 2163, 80th Cong., 2d Sess. 2 (1948); SEN. REP. No. 3189, 80th Cong., 2d Sess. 5 (1948).

[18] Especially by Justice Jackson in the dissenting opinion in Transcontinental & Western Air, Inc. v. Civil Aeronautics Board, 336 U. S. 601 (1949).

[19] Press criticism has come principally from the columnists Marquis Childs, Thomas L. Stokes, and Drew Pearson, although a few newspapers, particularly The Washington Post, have been critical.

[20] In this connection, the survey officer on aviation for the Regulatory Commission Committee of the Hoover Commission has made this statement:

"It appears that the Board could have done better in adopting general standards to guide it in handling the many important and novel policy decisions that have come before it. It has been pointed out that its decisions in individual cases have developed little precedent that either the Board or industry considers binding. This has made the Board's problem of rendering fair and consistent decisions particularly difficult." Sweeney, *Policy Formation by the Civil Aeronautics Board*, 16 J. AIR L. AND COM. 127, 159 (1949).

HOW NOT TO REGULATE AIR TRANSPORTATION

JAMES A. DURHAM*

There was a time when it was quite relevant to debate whether a particular industry should be regulated by the Federal Government. In many areas of our economy that question is now moot; certainly air transportation is a segment where the decision to regulate is irrevocable. In this framework our attention is turned to such matters as the appropriate objectives and techniques of regulation. These are vital areas of inquiry in connection with the work of the Civil Aeronautics Board, and particularly with its efforts to cope with the problems of air cargo which have emerged since the recent war.

I

BOARD "REGULATION" OF AIR CARGO

The so-called "regulation" of air cargo by the CAB, which this writer assumes other contributors will describe extensively, need not be fully repeated here. It is sufficient for the discussion to follow to recall but a few pertinent facts.

In early 1946 there were filed with the Civil Aeronautics Board fourteen applications for certificates of public convenience and necessity by new carriers seeking to participate in air freight transportation.[1] At approximately the same time seventy-eight persons sought authorization to engage indirectly in the air freight business as forwarders.[2] All applications were strenuously opposed by the entrenched passenger carriers, or by their trade association, the Air Transport Association of America. These latter efforts did not go in vain. It was not until May, 1947, that the freight carriers which had managed to survive were permitted to operate temporarily until final decision on their applications;[3] it was not until September, 1948, after most of them had been forced out of business, that forwarders were extended a similar temporary exemption;[4] and it was not until July, 1949, more than three years after the filing of the fourteen applications, that three of the remaining

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[1] *Air Freight Certificate Case*, Docket 810, Examiner's report, at 21 *et seq.* One of the applicants was Capital Airlines, a passenger carrier whose routes are limited to the eastern part of the United States.

[2] *Air Freight Forwarder Case*, Docket 681, Examiner's report, at 1. This number included the Railway Express Agency, which proposed to handle both freight and express over the routes of both passenger and freight carriers. The Agency has been permitted to move express only over the routes of the passenger carriers, a status which has been reaffirmed by the Board's decision in the *Air Freight Certificate Case*, Order Serial No. E-3085, July 29, 1949.

[3] CAB Economic Regulations, Section 292.5, Order Serial No. 389, May 5, 1947.

[4] *Air Freight Forwarder Case*, Order Serial No. E-1968, September 8, 1948.

cargo carriers were awarded certificates of public convenience and necessity, though on a temporary five-year basis.[5]

While the Board's right hand finally gave this measure of recognition to the new freight industry, its left hand meted out indirect obstacles and repudiations one after another. For example, by July, 1949, the applications of most of the other direct and indirect freight carriers had become academic by reason of their financial difficulties. In great measure these flowed from a rate war begun in June, 1946, and still continuing with but little Board interference. Initially the rates took the form of below-cost contract rates, yielding in some instances as low as eleven cents per ton mile,[6] but once the independent freight carriers were permitted to operate under temporary exemption from the certification requirement the entrenched carriers concentrated upon equally low rates for scheduled operations.[7] Finally, some of the tariff filings were suspended by the Board,[8] and an investigation ensued which terminated in an unusual minimum rate formula yielding revenues below the costs of even the most efficient carriers.[9] Almost immediately a stampede started to bring the rates of most commodities down to the minimum,[10] though the Board had solemnly warned the industry that it would take "action" if this occurred.[11] Up to this date the Board has done little to stop this defiance, other than to order an "investigation" which may take years to complete,[12] and consequently the rate war continues.

In fact, in some cases the Board has even made defiance of its minimum rate order profitable to the entrenched carriers. This arises by virtue of the fact that the mail subsidy awarded individual carriers under Section 406(b) of the Act is determined according to the *over-all* "break-even" need, plus a return on "recognized" *over-all* investment.[13] In this setting losses experienced from freight rate

[5] *Air Freight Certificate Case*, Order Serial No. E-3085, July 29, 1949. In the same proceeding a certificate was granted to Airnews, Inc., a wholly owned subsidiary of the Express Publishing Company of San Antonio, authorizing this carrier to transport newspapers published by its parent and other property to and from small cities in the Rio Grande Valley.

[6] N. Y. Times, June 12, 1946, p. 25, col. 5; Aviation Daily, June 6, 1946; *Air Freight Rate Investigation*, Docket 1705, transcript of hearing at 61-63. It is interesting to compare these with the 70 cent rates prevailing in 1944. See Hummon, *Research Pays Off in Air Freight*, U. S. DEP'T OF AGRICULTURE, MARKETING ACTIVITIES 3 (Sept. 1949).

[7] *Air Freight Forwarder Case*, transcript of hearing at W-2589; *Air Freight Rate Investigation*, transcript of hearing at 65, 227.

[8] *Suspension and Investigation, Air Freight Tariffs*, 8 CAB 621 (1947).

[9] Order Serial Nos. E-1415 and E-1639, April 21, 1948, and June 2, 1948. The formula established minimum rates of 16 cents per ton-mile on the first 1,000 ton-miles of any shipment, and 13 cents per ton-mile for ton-miles in excess of 1,000 ton-miles in any shipment.

[10] The average rate received by domestic carriers was but 12.68 cents per ton-mile in 1948. Dissenting opinion of Member Jones in *Air Freight Certificate Case*, Order Serial No. E-3085, July 29, 1949. Tariff filings in 1949 would have little impact upon this average.

[11] Order Serial Nos. E-1415 and E-1639, April 25, 1948, and June 2, 1948.

[12] *Class Rate Investigation*, Docket 3665, Order Serial No. E-2486, February 21, 1949. Upon the complaint of two of the all-freight carriers the Board did suspend certain tariffs designed to extend the lowest possible rates under the minimum rate order to the whole country. Order Serial No. E-2104, October 18, 1948.

[13] Of course, a small amount of total mail pay awards would be necessary in any event to cover the cost of carrying the mails. But as Senator Johnson of Colorado, Chairman of the United States Senate

cutting are for practical purposes treated as another expense of doing business. In most of the mail subsidy awards made since the beginning of the rate war in June, 1946, the Board has simply ignored this problem. For example, in the *Big Four* mail rate proceeding, which is by far the most important of these cases by reason of the carriers involved,[14] the Board's tentative opinions refer to the *over-all* need of this group of carriers without reference to the fact that three of them have been engaged in destructive freight rate cutting for over three years.[15] In five instances the relationship between mail pay and freight losses has been faced by the Board, and in three of these the Board has been willing to let the carriers recoup their freight losses;[16] in a fourth instance freight losses have been temporarily disallowed by an approach which suggests they may subsequently be allowed;[17] and in the fifth instance recoupment has been barred by an approach which shies away from the issue.[18] These actions were in direct contrast to the pious verbiage of a previous Board opinion that reporting procedures would be employed to prevent the use of mail subsidy to finance losses incurred in a rate war.[19]

Moreover, up until recently the Board has seized upon the flimsiest of procedural excuses to prevent the nonsubsidized freight carriers from getting a clear-cut decision on the mail-subsidy-freight-rate issue. Thus in the *Air Freight Rate Investigation*, the Board indicated that this matter should be decided in mail rate proceedings,[20] but for several months thereafter when representatives of the freight industry sought to present their case in mail proceedings they were either barred or ignored,[21] in

Interstate and Foreign Commerce Committee, pointed out in an address before the Kansas City Chamber of Commerce on July 15, 1949, "Clearly the CAB is underwriting the airline commercial losses with mail pay. No one knows how much of these payments are subsidy and how much is compensatory." The Senator expressed the view that "to mix mail pay with subsidy is a sloppy and wasteful way to do business." The formulation of mail rate policy from 1938 through mid-1946 is described extensively in Burt and Highsaw, *Regulation of Rates in Air Transportation*, 7 La. L. Rev. 378, 393 (1946-1947).

[14] In the industry the "Big Four" identifies American Airlines, Inc., Eastern Air Lines, Inc., Transcontinental & Western Air, Inc., and United Air Lines, Inc. These carriers transported approximately 81 per cent of domestic air mail in 1948, and received approximately 50 per cent of the mail pay awarded to domestic carriers. *Hearings before Senate Committee on Interstate and Foreign Commerce*, 81st Cong., 1st Sess. 489, Appendix 1 (1949), and CAB recurrent reports.

[15] Order Serial Nos. E-1351 to 1355, March 29, 1948; Order Serial Nos. E-1517 to 1521, May 7, 1948; Order Serial No. E-2484, February 21, 1949.

[16] *Braniff Airways, Inc., Mail Rates*, Order Serial No. E-1931, September 2, 1948; *Delta Air Lines, Inc., Mail Rates*, Order Serial No. E-1959, September 7, 1948; *Capital Air Lines, Inc., Mail Rates*, Order Serial No. E-2675, April 1, 1949. In the latter proceeding, the Board tentatively has disallowed losses arising out of the use of C-47 equipment, but has indicated its willingness otherwise to make up in mail pay for freight losses providing the carrier abides by the below-cost minimum rates established by the Board. Thus if a carrier receives 16 cents per ton-mile for transporting freight, which operation cost the carrier 21 cents per ton-mile, the Board will pay 5 cents per ton-mile to offset this loss from freight.

[17] *Pan American-Grace Airways, Inc., Mail Rates*, Order Serial No. E-2710, April 12, 1949. In this tentative opinion the Board announced that cargo losses would not necessarily be underwritten, depending upon the circumstances in "each case." Before a final opinion is issued the carrier is in a position to demonstrate that this is a proper case for the use of mail subsidy to underwrite cargo losses.

[18] *Pan American Airways, Inc., Transatlantic Services, Mail Rates*, Order Serial No. E-2728, April 19, 1949.

[19] *Motions of Air Freight Forwarder Association*, 8 CAB 469, 474 (1948).

[20] Order Serial No. E-1639, June 2, 1948.

[21] Order Serial Nos. E-2035 and 2036, September 30, 1948; E-2086, October 14, 1948; E-2189,

spite of quite a liberal policy on interventions in cases where there were important issues.[22] Finally, in recent months the Board has granted "limited intervention" to freight carriers in two mail cases where there is serious question that subsidy is financing freight operations.[23]

The lack of reporting procedures that will permit a reasonably accurate comparison of the freight costs and revenues of the dominant passenger-mail carriers is an amazing spectacle in this day of penetrating accountancy. By and large the Board has simply ignored demands for the establishment of such procedures, as in the *Air Freight Rate Investigation* where the request was so obviously relevant.[24] Recently legislation has been introduced which, among other things, would compel separate reporting for air cargo;[25] this has been met with a Board-backed proposal that Congress pass a resolution authorizing an exhaustive CAB mail pay study which might require the Board to reallocate overhead costs among the various classes of services rendered.[26] It must be obvious that the time taken to get such a resolution through the Congress, the period for the study, and the time necessary to put reporting procedures into effect would give the entrenched carriers abundant opportunity to eliminate the remaining all-freight direct and indirect carriers through continued use of mail pay to finance low freight rates. This approach on the part of the Board, coupled with its inaction on this subject during the whole period of air freight development, suggests the conclusion that the relationship between the Board and the principal passenger-mail carriers borders on benevolent cooperation.

Nor has the Board sought a favorable climate for the implementation of its decisions. After the freight carriers temporarily were exempted from the certification requirement, they sought to develop new traffic from new points, and in accordance with the economic regulation under which they were operating sought Board permission to use such additional points. These requests were coldly received,[27] yet at least one Board member,[28] to say nothing of the entrenched car-

November 12, 1948; E-2296, December 15, 1948; and E-2297, December 16, 1948. In these cases where the Board has refused to permit intervention, representatives of the freight industry have been permitted to state their position at a *pro forma* hearing before an Examiner subsequent to the issuance of tentative mail rate opinions, as in the *Braniff* and *Delta* cases, note 16 *supra*. Since the Examiner's report in mail rate proceedings does not discuss the merits of the case, however, whatever statements of position that have been made at such *pro forma* hearings would appear to be of no significance in the formulation of the Board's final decision.

[22] In the *Air Freight Certificate Case*, for example, some 65 persons or groups were permitted to intervene formally, and in addition appearances were entered for some 27 others.

[23] Order Serial Nos. E-2717, April 14, 1949 (Members Jones and Adams dissenting), and E-2733, April 19, 1949.

[24] See particularly brief of public counsel in *Air Freight Rate Investigation*, at 66, 69.

[25] S. 1431, 81st Cong., 1st Sess. (1949). Unfortunately, this bill and a more recently offered substitute (S. 2437) contain formulae for the determination of mail pay which would give the principal mail carriers alleged "compensatory rates" which in some instances would exceed the presently subsidized rates.

[26] S. J. Res. 92, 81st Cong., 1st Sess. (1949).

[27] Administration of the exemption order was delegated to the staff. See the briefs of The Flying Tiger Line and Slick Airways, Inc., in *Air Freight Certificate Case*, discussing this matter.

[28] For example, see the dissenting opinion of Member Jones in the *Air Freight Certificate Case*, Order Serial No. E-3085, July 29, 1949, at 24-5.

riers,[29] continued to demand why the freight carriers were not serving a larger number of points. Likewise, after finally granting the forwarders permission to do business after two earlier rejections,[30] in a routine order the Board almost immediately whittled away the significance of its *Forwarder* decision by placing the entrenched carriers in the forwarder business.[31] Moreover, after indicating that the freight carriers would be permitted to handle express traffic,[32] this rich source of revenue finally was allotted to the passenger carriers exclusively.[33]

The Board even gave the established airlines protection from the antitrust provision of the Act.[34] In June, 1946, when the rate war began, the entrenched grandfather group determined to employ rate conferences and a consolidated freight tariff, and sought Board approval of this approach. The Board initially refused either to approve or disapprove this agreement,[35] but within two weeks after the filing of motions requesting *ex parte* approval the Board concluded the matter by approving the agreement![36] This action was taken with full realization—recognized in different ways in both majority and dissenting opinions—that the agreement could be employed to cut down the new competition from the freight carriers. True enough, as a technical matter this agreement was approved only temporarily, but of course during the period when freight carriers were seeking certificates the device could be employed by the established carriers to destroy their competitors. In this context the real meaning of temporary approval was tantamount to final approval, in as much as elementary knowledge of antitrust proceedings leaves no room for doubt that a final decision would take considerable time and staff. As a matter of fact, the Board's investigation of this particular agreement has not yet reached the hearing stage after nearly three years.[37]

Perhaps the most unfortunate thing about the foregoing type of public conduct was that it occurred at a crucial time in the development of air transportation. During the depression years, when government first moved to control the air transportation industry, the emphasis was on using the mail subsidy device to give it aid and comfort. The war prosperity substantially reduced the necessity for this

[29] See particularly the briefs of American Airlines, Inc., and United Air Lines, Inc., in the *Air Freight Certificate Case*.

[30] Order Serial Nos. E-1343, April 2, 1948 (Member Lee dissenting); E-1445, April 26, 1948 (Member Lee dissenting); and E-1968, September 8, 1948 (Member Jones dissenting).

[31] Order Serial No. E-2023, September 28, 1948.

[32] *Air Freight Forwarder Case*, Order Serial No. E-1968, September 8, 1948.

[33] *Air Freight Certificate Case*, Order Serial No. E-3085, July 29, 1949.

[34] Under Section 414 of the Civil Aeronautics Act the antitrust laws are applicable in the absence of affirmative action by the Board under Sections 408, 409, and 412 of the Act. 52 STAT. 1004 (1938), 49 U. S. C. §494 (1946).

[35] *Air Freight Tariff Agreement Investigation*, Docket 2719, Order Serial No. E-179, December 12, 1946.

[36] Order Serial No. E-339, February 24, 1947 (Member Lee dissenting). For some reason the Board did not see fit to publish in CAB Opinions this very significant step. In Sweeney, *Policy Formation by the Civil Aeronautics Board*, 16 J. AIR LAW & COM. 127, 157 (1949), the failure of the Board to publish significant policy decisions and opinions when not connected with a final determination is criticized vigorously.

[37] The investigation was begun in December 1946; hearings are scheduled to begin in October 1949.

type of aid, but once the demand for luxury travel tapered off and vendors of air coach and air freight service gave challenge, the thinking of the established industry[38] and the Board fell back upon the old mail subsidy solution. The apparent conclusion that no certificated carrier should be forced to endure bankruptcy[39] led to the further conclusion that others should be discouraged from participating in the further development of aviation, that the Board would employ its procedures and taxpayers' monies to recoup the freight and other losses of such carriers, and that the salvation of the early-born carriers, irrespective of the character of their management, was the prime objective of Board policy.

It would not be accurate to say that these were *conscious* Board objectives, or even *conscious* staff objectives, though unquestionably many of the individuals participating in the "regulatory" process, sometimes happily and sometimes unhappily, were aware of the march of events. To some extent new economic factors were sufficiently strong to override the usual attitudes, but only after enterprise outdistanced and made the old solutions appear outworn and untenable. The caution and inconsistent pattern of the Board's case-by-case approach is better understood when the indecisive attitude of individual Board members is set out case-by-case. Member Josh Lee, once regarded as an "expansionist" and friend of the new freight carriers,[40] (1) voted consistently to permit the forwarders to participate in air transportation, the first time as a minority of one,[41] (2) dissented vigorously when the Board exempted the established carriers from the Act's antitrust provision during the rate war,[42] and (3) agreed to allow the freight lines to challenge the Board's mail pay policy with respect to freight.[43] Yet this same Mr. Lee (4) dissented when the Board by a 3-2 vote awarded temporary certificates to three of the freight carriers.[44] The record of Vice-Chairman Ryan, once regarded as a "conservative" by spokesmen for the well-established carriers,[45] is equally anomalous, though almost the opposite. He (1) originally voted with the majority to prevent the entry of forwarders,[46] and (2) was in favor of the antitrust exemption for the established carriers.[47] Yet it was this same Member (3) who finally voted with the majority to permit forwarders to operate temporarily without certificates after disagreeing two previous times,[48] (4) who finally agreed to letting the freight carriers challenge the use of mail pay to finance freight losses,[49] and (5) who agreed that three of the freight carriers should

[38] *E.g.*, testimony of Carleton Putnam, Chicago & Southern Air Lines Board Chairman, and W. A. Patterson, United Air Lines President, in *Hearings before Committee on Interstate and Foreign Commerce on S. Res. 50*, 81st Cong., 1st Sess., 452-454, 670-672 (1949).

[39] Chairman O'Connell has raised the question whether the bankruptcy process would not have certain advantages for air transportation. See *Air Mail Pay Under the Civil Aeronautics Act*, an address by Chairman O'Connell before the Association of the Bar of the City of New York on March 23, 1949.

[40] Aviation Week, May 3, 1948, p. 43.

[41] Order Serial Nos. E-1343, April 2, 1948; E-1445, April 26, 1948; and E-1968, September 8, 1948.

[42] Order Serial No. E-339, February 24, 1947.

[43] Order Serial No. E-2717, April 14, 1949.

[44] Order Serial No. E-3085, July 29, 1949.

[45] See note 40 *supra*.

[46] Order Serial Nos. E-1343, April 2, 1948, and E-1445, April 26, 1948.

[47] Order Serial No. E-339, February 24, 1947.

[48] Order Serial No. E-1968, September 8, 1948.

[49] Order Serial No. E-2717, April 14, 1949.

be granted temporary certificates.[50] His agreement to certificate these carriers and to permit their intervention in mail pay cases came only after the former decision was postponed in the fall of 1948,[51] and after his reappointment in early 1949 to a full six-year term. Member Adams, whose recent appointment was well regarded among spokesmen for certificated carriers,[52] had (1) taken the position that freight carriers should be denied a hearing on mail pay,[53] yet at the same time (2) agreed to awarding temporary certificates to three of the freight carriers.[54] Prior to his appointment to the Board, Member Adams was Director of the Board's Economic Bureau, which is one of the two most influential positions on the staff. In that capacity he undoubtedly participated in formulating Board policy with respect to several of the aforementioned subjects,[55] but there is no public record of his previous thinking.

Greater consistency is apparent from the records of Chairman O'Connell and Member Jones, though the conclusions they reached with respect to the aforementioned issues were diametrically opposed. The Chairman favored entry of forwarders into the business,[56] believed it appropriate to give the freight carriers a hearing on the troublesome mail subsidy question,[57] and favored certificates for the freight carriers.[58] In very forceful opinions of dissent, Member Jones reached the opposite conclusions in each instance. Neither were members of the Board when the other crucial questions were decided. O'Connell and Jones did agree upon the establishment of a minimum freight rate[59] and upon the backdoor entry of the direct carriers into the forwarding business,[60] as did both Members Lee and Ryan and as did Member Adams in the latter instance. However, these unanimous votes are difficult to evaluate. That the Board should interfere with a crippling rate war seems an obvious necessity, whether the step was to keep the entrenched carriers from driving their new competitors to the wall or whether it was to prevent the dissipation of the assets of the certificated group. Because the minimum rate was established at a below-cost level, and in view of the Board's willingness to use mail subsidy to make up for freight losses, the minimum rate has had but slight impact upon either objective. The unanimous decision to let direct carriers in the forwarding business could have been the result of general Board and staff agreement that the forwarder decision made desirable mollification of the entrenched carriers;[61] it may have come

[50] Order Serial No. E-3085, July 29, 1949.
[51] Order Serial Nos. E-2108 and E-2109, October 20, 1948.
[52] See note 40 *supra*; American Aviation, March 15, 1948, p. 11.
[53] Order Serial No. E-2717, April 14, 1949.
[54] Order Serial No. E-3085, July 29, 1949.
[55] For a discussion of the influence of staff upon Board policy, see Sweeney, note 36 *supra*.
[56] Order Serial No. E-1968, September 8, 1948.
[57] Order Serial No. E-2717, April 14, 1949.
[58] Order Serial No. E-3085, July 29, 1949.
[59] Order Serial Nos. E-1415, April 21, 1948, and E-1639, June 2, 1948.
[60] Order Serial No. E-2023, September 28, 1948.
[61] The decision of September 8, 1948 in the *Air Freight Forwarder Case* was appealed by all of the entrenched carriers but one. See American Airlines *et al.* v. Civil Aeronautics Board, Docket No. 9739, U. S. Court of Appeals, 7th Circuit.

from a desire to carry water on both shoulders; it may have stemmed from the feeling that the matter was unimportant; there was a feeling that fairness required the Board to permit the direct carriers to engage in forwarding on equal terms with the newcomers engaged only in forwarding. If the latter was the case, the Board would appear to have been unusually naïve since, in the absence of minimum forwarding charges exceeding the cost of this function (and no attempt has been made to measure this cost), the subsidized mail carriers have no difficulty in absorbing the losses necessary to drive the forwarders to the wall. Unfortunately, the failure of the Board to issue an opinion in this matter postpones a statement of its position until after the current investigation,[62] which again may take considerable time.

As might be expected, the Board's record on air cargo is symptomatic of its over-all effort. The inconsistencies of the Board's *ad hoc* decisions involving route extensions have been criticized;[63] and its recent vacillations on mail subsidy have even evoked caustic comment in a dissenting opinion by Justice Jackson.[64] The beneficiaries of Board decisions and CAB counsel in most instances can give long "explanations" of the Board's public acts and utterances, but these are sometimes difficult to comprehend. Perhaps these "explanations" can be better fathomed in the light of an examination of the CAB universe, and the relations between its three components—the Board, its staff, and the industry.

Although the official reports of the Board and the usual expositions of its work politely ignore it, the relationships between the staff and the Board (and individual Board members), between the Board and the industry, and between the staff and the industry vitally affect Board policies and decisions. At first blush this relationship would appear little different from some of the other regulatory agencies,[65] but in the case of aviation the additional factor that the agency is supporting the industry must be added. Board members are frequently on the friendliest of terms with counsel or management of individual carriers. In many instances this starts from a genuine interest in the problems of the particular carrier; in others it stems from the fact that counsel formerly was an employee of the Board; and in some instances Board members feel it discreet to keep these contacts warm lest, like former Chairman Landis, they find themselves politically unavailable for reappointment. But irrespective of the genesis of these relationships, they obviously do not throw sand in the machinery that grinds out mail subsidies and route extensions on a convenient case-by-case basis.

As problems become more complex, Board members have increased their reliance

[62] Order Serial No. E-2023, September 28, 1948.

[63] Westwood, *Choice of the Air Carrier for New Air Transport Routes*, 16 GEO. WASH. L. REV. 1, 159 (1947-48); Sweeney, note 36 *supra*.

[64] Transcontinental & Western Air, Inc. v. Civil Aeronautics Board, 336 U. S. 601, 608 (1949).

[65] Even the ordinary relationships between an agency and an industry vitally affect regulation. *E.g.*, Marquis Childs, Washington Post, April 7, 1949, p. 11, col. 3, discussing the Federal Power Commission; editorial, Washington Post, April 22, 1949, p. 24, col. 3, discussing the Maritime Commission; Senator Johnson of Colorado, 95 CONG. REC. 4869 (1949), discussing the Federal Communications Commission. For a discussion of this matter covering an earlier period, see E. PENDLETON HERRING, PUBLIC ADMINISTRATION AND THE PUBLIC INTEREST (1936).

upon staff advice—a proposition repeatedly emphasized by the CAB survey officer attached to the Hoover Commission on governmental reorganization.[66] This raises the question of staff attitudes, a matter which realistic airline counsel have not overlooked. Fortunately for the latter, many of the most influential members of the staff have been with the Board since its earliest days, when mail pay and grandfather certificates were the primary matters of concern, and a few of them were doing similar tasks for other agencies before the establishment of the Civil Aeronautics Board. Because of a strong promotion-from-within personnel policy, and because of internal operating procedures which with few exceptions limit access to Board members to highly placed persons on the staff, such persons are now in a position to express their very sincere thoughts that it is wisest to use "caution" in the "regulatory" process, and that the Government has sunk so much subsidy into a given carrier that this "investment" should be protected by further subsidy, or by additional route extensions, or by the extinction of new competitors. After all, Board members who think otherwise will come and go, but the entrenched carriers are in the picture to stay. It takes no more than this to suggest to most new employees that their future can be best protected by giving serious weight to the suggestions made to the staff by representatives of the dominant carriers; after all, most men are sufficiently ambitious to desire promotion within the civil service and/or the proffer of airline employment at an even greater stipend. This is not to suggest or imply that staff people are either dishonest or insincere; it simply means that their conclusions are conditioned by the attitudes of their superiors and that most staff personnel, high and low, are conditioned—usually subconsciously—by the attitudes of airline counsel and management and by the process of pulling one carrier after another out of economic difficulties.

Much has been written and said about the need for specialized counsel in prosecuting claims before government agencies. The necessity for specialized counsel is difficult to generalize about, but its superior effectiveness in dealing wtih the CAB cannot be overstated. It is not that specialized counsel is better prepared to file motions, write briefs, and argue cases before the Board; the real value of specialized counsel to an airline is counsel's knowledge of the various biases and ambitions of Board and particularly staff members, of the complex human relationships that exist among staff personnel, and of the tendency of certain division heads to make commitments on their own without reference to action taken in other parts of the agency. On different matters, different Board and staff members are approached; if possible, an attempt is made to get bureau or division head *A* committed where it can be anticipated that bureau or division head *B* will object, thus placing *A* in a position where he will "lose face" if his commitment is overruled. Likewise, it is necessary to know which of the staff are sufficiently influential to be worth cultivating. Such intimate knowledge is a large part of the stock-in-trade of specialized aviation coun-

[66] Sweeney, note 36 *supra.*

sel,[67] some of whom have greater influence on specific Board decisions than do the Board's own counsel.

This suggests the psychological setting in which "regulation" and "development" of air transportation is approached. Except for the obvious public interest in having more aviation, the attitude that the agency had a job of regulating to be done in the public interest—in contract to carrier interest—never gained much of a foothold at the Civil Aeronautics Board. In this context "regulation" is much more akin to "playing the angles," and the statutory directive to "promote" and "develop" the industry comes down to rationalizing the amount of mail pay and route extensions desired by individual carriers.

II

PLANNING AIR TRANSPORTATION

Solutions to concrete problems of governmental administration do not come easily, and air transportation is by no means an exception. However, by this time it must be clear that the problems this industry presents require the formulation and development of a comprehensive master plan for all air transport. The mere redrawing of the route structure map, which CAB has often threatened to "suggest" to the industry but has yet to do,[68] is only one ingredient of the planning here proposed. In addition, questions of the function and use of mail pay, and the place of freight carriers, forwarders, air coach service, and super-luxury service, all need to be rationalized and placed in their proper perspective. As has been elsewhere indicated, there is abundant statutory authority for such an approach to air transport regulation;[69] in fact, the Act practically directs such a course, since there seems no possible rational way to use broad affirmative powers in "developing, promoting, and encouraging" the industry by the case-by-case approach. It is this latter approach, which according to some Board members protects the Board from "political pressures,"[70] which makes it so convenient to decide one subsidy or route case without reference to any other, and which makes it so convenient to hand out valuable considerations first to one contestant and then to another, depending upon hunch, relationships between Board and staff and the individual carrier, and other subjective factors.

[67] There will be considerable disagreement with Marquis Childs' concluding paragraph in a column dealing with the recent "5 per cent" Senate investigation: "Everyone who knows Washington at close range knows that the 5-percenters who have come into this inquiry are for the most part the little fellows. The big operators are the lawyers—out of both the Old Deal and the New Deal—who rarely go into a courtroom. Their specialty is influence and knowing the right people and they make millions from it. An investigation that really dug into this phase of the influence industry would hit pay dirt." Washington Post, September 1, 1949, p. 9, col. 4.

[68] A report by the CAB on revision of route structures was originally promised in February 1949, and subsequently in July 1949. Sweeney, note 36 *supra*, at 152. This report has not yet been issued, and the Board has not announced a new date for its publication. The route structure matter is discussed in Business Week, October 9, 1948, pp. 19-20.

[69] Durham and Feldstein, *Regulation as a Tool in the Development of the Air Freight Industry*, 34 VA. L. REV. 769, 791 (1948).

[70] Sweeney, note 36 *supra* at 147.

But how do we go about planning the future of air transportation, in view of all the difficulties of procedure and relationship that are involved? How is it possible for the Board and its staff to approach their tasks in a psychological and mental framework that is foreign to cooperating, negotiating, or compromising with the group the agency is supposed to be regulating?

At the outset it is necessary to build a new relationship between the Board and the staff. The loyalties of the staff must not be divided among different Board members, the islands of independent authority among certain division heads need elimination, and the staff needs to be protected from the "suggestions" of some of the more effective airline counsel. The most practicable and effective way to bring this about is to place the staff directly under the Board Chairman. In the case of the Civil Aeronautics Board, the Chairman is designated by the President, and consequently persons of greater public stature have been attracted to the Chairmanship than is the case of agencies where the chairmanship rotates.[71] But this reorganization need not preclude other Board Members from urging and relying upon the staff for alternative solutions to problems of air transportation. Staff presentations to Board Members need not be in terms of a single solution, which has been more or less the tendency of the CAB, but in so far as a comprehensive master plan will permit alternative solutions should be offered. The Hoover Commission on Reorganization of the Executive Branch has recommended that all the independent regulatory agencies place their staffs under their chairmen,[72] a suggestion which already has been followed in the case of the Maritime Commission.[73] In the case of the CAB, the present and historical relations between Board members probably would require that internal reorganization of this character be initiated by the White House.

Less opportunistic relationships between Board and staff also are dependent upon selections to both groups of persons of broad perspective, creative imagination, and unselfish devotion to the public service. The stars in our firmament of government administration are largely a history of men and not organization charts. Of course, the quality of appointments to the Board itself should be the President's concern,[74] although greater public scrutiny of these appointments, as exists in the case of Chairmanship appointments, might well lessen the effectiveness of suggestions made by the carriers. Quite apart from this, however, were the staff to be directly re-

[71] The same has been true in the case of the Securities and Exchange Commission, the Federal Reserve Board, and the Federal Communications Commission, for example; and, now that the Chairman of the Maritime Commission is designated by the President, at the latter agency as well. See editorial, Washington Post, April 22, 1949, p. 24, col. 3, and *cf.* Letter to the Editor from George Killion, President, American President Lines, Washington Post, May 6, 1949, p. 24, col. 5.

[72] A Report to the Congress on Regulatory Commissions by the Commission on Organization of the Executive Branch of the Government 5-6 (March 1949).

[73] The relation of the Chairman to the staff is set forth in *U. S. Maritime Commission, Organization and Functions*, 14 Fed. Reg. 5350, §§5, 6 (August 27, 1949).

[74] The Hoover Commission Report on Regulatory Commissions, note 72 *supra*, makes the following criticism of appointments to these agencies: "b. Appointments to membership on these commissions are sometimes below desirable standards because of the inadequate salaries offered, or *the failure of the Executive to appreciate the importance of the positions.*" *Id.* at 3. (Italics supplied.)

sponsible to the Chairman, the selection of higher-placed staff officers could turn more on the ability and contribution of the candidate and less upon such matters as seniority and popularity with the industry and Board members.

In this setting the agency should be in a better position to make full use of the techniques of planning, of accounting, of engineering, of statistics, of budgeting, and of administrative standards. The Board has authority to compel uniform accounting under Section 407(d) of the Act; however, it permits carriers to employ any system of accounts desired in their own operations, providing expenses are uniformly reported. In actual practice, expenses reported by individual carriers often are not comparable because of a variance of the items comprising a particular uniform account.[75] The Board appears not to have taken seriously the need for objective, efficiency-engineering studies, such as time and motion studies, although their use is obvious in the case of cargo and mail handling. It may be that the reluctance to determine the cost of carrying the mail has some relation to this attitude. As a matter of fact, there are no really adequate objective data extant that point to the cost of performing any service. The possibility of employing statistics as a control device does not seem to be recognized.

It is in the failure of the agency to develop administrative standards, which would implement and supplement statutory standards, that the record of the Board's legal staff appears so inadequate. The legislative history of the standards of the Civil Aeronautics Act—so relevant to the formulation of adequate administrative standards—does not appear to be reflected in CAB decisions. Section 2 of the Act, setting forth objectives which in effect direct the Board to employ regulation as a means to developing, promoting, and encouraging aviation, by virtue of their indiscriminate use has no real meaning or content. They are recited glibly by the applicant who wants something from the Board, and are subsequently recited back by the Board *after* the decision to play Santa Claus has been made. The Board and staff do purport to give effect to the requirements of Section 401(d) that a carrier be "fit, willing, and able" before issuing a certificate of public convenience and necessity, although in nearly all cases the three standards are considered but one.[76] But what meaning is ascribed to these very significant legislative standards? This writer is convinced that while in many cases a sincere attempt is made to apply the standards fairly, to one examiner they mean one thing, to another something else, to different Board members still something different. Similarly, the requirement of Section 406(b) that carriers maintain "honest, economical, and efficient management" is repeatedly called into play in determining mail subsidy awards, but again in application the meaning given these standards varies. There are other statutory standards which have received inadequate administrative attention, but these are illustrative.

[75] In numerous mail rate proceedings the CAB's staff makes "adjustments" in carrier figures to make data comparable. Such adjustments rarely appear in formal opinions issued by the Board.

[76] For example, see the opinion of the Board in the *Air Freight Certificate Case*, Order Serial No. E-3085, July 29, 1949. *Cf.* the *West Coast Case*, 6 CAB 961 (1946), supplemental opinion on reconsideration, Order Serial No. E-555, May 19, 1947, and the *Hawaiian Intraterritorial Case*, Order Serial No. E-2496, November 29, 1948.

The aforementioned statutory standards lend themselves admirably to the formulation of concrete administrative standards that are relevant to the regulation of air transportation. Each of the words "fit, willing, and able" and "honest, economical, and efficient" can be given special significance. In the matter of awarding certificates of public convenience and necessity, it would appear that the legislative standard "willing" carries with it much more than the idea that a New York-Chicago carrier simply *wants* a route extension to Milwaukee, as an example. If the carrier's request for the extension stems from a desire to prevent another carrier from being certificated, which is so often the case, there is an obvious lack of good faith which would appear to be in conflict with a professed willingness to give the best possible service between Chicago and Milwaukee. A carrier's willingness to gain an extension may also be tested by the extent to which it has exploited its existing route structure. If the same New York-Chicago carrier has been operating an extension to Des Moines which it has not exploited fully, it would appear difficult to conclude that the same carrier was "willing" to give the character of service to Milwaukee which is required by the "present and future needs of the foreign and domestic commerce," to quote Section 2 of the Act. In this sense the carrier may not be fully exploiting its principal New York-Chicago route, in which case it could hardly be "willing" to operate a Milwaukee extension. The present air map is full of route extensions which are not being fully exploited by certain carriers, but because mail subsidy is determined on the basis of *over-all* need there is little incentive for either the surrender or exploitation of such segments.[77] Whether a carrier is "able" to operate a given extension would appear to be a matter of financing and engineering. If the extension to Milwaukee will increase the carrier's dependence upon mail subsidy, a serious question of "ability" arises. Likewise if planes, ground crews, and pilots are insufficient, if Milwaukee cannot handle larger planes or more flights without a new airport, if the extension will mean poor scheduling at important points, then there are questions of ability present.

Even if a carrier is "willing and able" to operate an extension, it may not be the "fit" carrier. Whether a carrier is "fit" should basically depend upon whether the extension requested is consistent with the comprehensive plan for the development of both the particular carrier and the *entire* industry. The proper application of this standard of the Act would appear to require the Board to engage in comprehensive planning for the industry. Significantly enough, Section 2 of the Act, which sets forth the declaration of policy, in two places specifically calls for the development of an air transportation *system* which will meet *future* as well as present needs.

The legislative standards "honest, economical and efficient management" are not placed haphazardly in the Act, but are set forth in Section 406(b) as conditions upon which mail subsidy may be provided the carriers. In effect they are *limitations*

[77] However, in a petition filed in 1948, Northeast Airlines requested that a portion of its Route 27 be transferred to another carrier. See CAB Docket No. 3337.

upon the Board's power to dispense subsidy, but it is extremely difficult to show more than a mild influence of these standards upon the work of the Board. The same is true of the further condition upon the Board's authority to award subsidy, namely, that such subsidies be related to the continuance of "the development of air transportation to the extent and of the character and quality required. . . ." It is this sentence of Section 406(b) which so clearly links the payment of mail subsidies to the sections dealing with the declaration of policy and certificates of public convenience and necessity; it is both of these sentences which point up the concept of subsidy for use in fashioning a comprehensive air transportation system.

The Board has never concluded that subsidy should be denied because of the absence of "honest . . . management."[78] Apparently the application of this standard has not gone far beyond insisting that carriers do not take candy from babies. When the Board tells the industry that freight rates must go higher and they immediately come down, is not a serious question of "honest management" involved? When the Board directs the filing of contract cargo rates in the midst of a rate war, and these are not filed for two years, is there no problem of "honest . . . management?" When a carrier cuts freight rates below those of a nonmail competitor immediately after receiving a large mail subsidy, should this be considered as an act of "honest management?" What about including items in the uniform accounts which do not belong there? What about making available to its officers stock options immediately after negotiating, but before making public announcement of, a substantial subsidy award? What about defying the United States Government in time of war?

Unquestionably the Board and its staff deserve credit for the attempt to require better utilization of equipment through the use of the "efficient management" standard.[79] Here, however, instead of developing norms for measuring "efficient management," the Board simply has assumed that the *average* carrier *has* "efficient management" and makes no disallowance in mail subsidy cases unless utilization is substantially below the average. The Board has developed no administrative standards to implement the "economical management" standard of the Act, but simply lumps this legislative standard along with the "efficiency" standard as if the two standards were synonymous.[80] It would appear that administrative standards

[78] ". . . Actually I do not know of any instance in which the specific finding of disallowance was based upon dishonesty.

"I was merely paraphrasing the statute which has the three words in it. Actually the disallowances with which I am familiar have been, in our judgment, examples of inefficient and uneconomical operations, and I do not recall any in which there has been an issue of dishonesty." Testimony of Chairman O'Connell in *Hearings before Committee on Interstate and Foreign Commerce on S. Res. 50*, 81st Cong., 1st Sess. 139 (1949).

[79] The Board's approach to efficiency is described in Sweeney, note 36 *supra*, at 152-154.

[80] *E.g.*, see the Board opinions in the current "Big Four" mail rate case referred to in note 15 *supra*; see also testimony of Chairman O'Connell, note 77 *supra*; O'Connell, note 39 *supra*; Sweeney, note 36 *supra* at 152-154. It is not unusual that these two words should be regarded as synonymous. In a recent review of the report of the Hoover Commission, David Cushman Coyle offers this interesting criticism:

"Probably the chief fault of the commission's report is that it has accepted without clear definition the words 'economy and efficiency,' used in the enabling act practically as synonyms. In this context,

supplementing the "economical management" statutory standard might be concerned with whether the carrier's economic planning is consistent with its own plan of development and with the over-all planning job carried out by the Board. It will be recalled that Section 2 is concerned with an air transportation *system* adapted to meet *future* as well as present needs. It is encouraging that at least Chairman O'Connell has recognized that "economical management" has a meaning quite distinct from that of "efficient management,"[81] although there are as yet no Board decisions recognizing the distinction and its possibilities.

The writer has no brief for any particular administrative standards, or for that matter, for any specific use of the other techniques of planning; the foregoing are merely suggestive. It does seem clear, however, that only by the wisest and maximum use of these tools will the Board be able to formulate a comprehensive master plan for the regulation and development of both cargo and other traffic that can gain the respect of all concerned.

III

Law and Planning

It may be remarked that the foregoing suggestions will remake the Civil Aeronautics Board into another Atomic Energy Commission, Tennessee Valley Authority, or Department of Agriculture. It may be argued that as remade into a planning arm of the government the CAB will be forced to abandon the case-by-case approach of the Interstate Commerce Commission, which was given to it by the historical accident that aviation is a form of transportation which was once under the wing of the ICC. Lest there be any misunderstanding, that is exactly what is proposed. The growth character of air transportation requires planning rather than umpiring, and if the CAB does not do the planning in the national interest the group supposedly being regulated will do the planning in their own interest. In fact, much of the history of aviation regulation under the Civil Aeronautics Act is no more than this latter story.

Planning does not require conflict with any concepts of fair hearing, such as those embodied in the Administrative Procedure Act[82] and the Civil Aeronautics Act.[83] It requires only that procedural forms will not be used to obstruct substantive decisions. The history of the OPA protest procedure[84] and the procedure of the

economy properly means not buying what you don't need, while efficiency means getting the most for your money. That is, the words should refer on the one hand to policy, which is for Congress to decide, and on the other to management, which is the President's job as administrator." N. Y. Times Book Review, June 5, 1949, §7, p. 27, col. 2.

[81] O'Connell, note 39 *supra*.

[82] 60 Stat. 237, 5 U. S. C. §§1001 *et seq.* (1946).

[83] 52 Stat. 977 (1938), 49 U. S. C. §§401 *et seq.* (1946).

[84] Unfortunately the history of the OPA protest procedure authorized by Section 203 of the Emergency Price Control Act (56 Stat. 23 (1942), 50 U. S. C. §§901 *et seq.* (1946)), has never been recorded. Some of it is reflected in Nathanson, *The Emergency Court of Appeals*, in Problems in Price Control: Legal Phases (Historical Reports on War Administration, Gen. Pub. No. 11, 1947), and in Hyman and Nathanson, *Judicial Review of Price Control: The Battle of the Meat Regulations*, 42 Ill. L. Rev. 584 (1947).

Department of Agriculture in administering the Agricultural Marketing Agreement Act[85] suggest the feasibility of postponing hearings on individual cases until after the regulation or plan has been promulgated.[86] Section 1001 of the Civil Aeronautics Act fully authorizes a procedure that will meet the special needs of the agency's problem: "The Authority may conduct its proceedings in such manner as will be conducive to the proper dispatch of business and to the ends of justice."

Perhaps some comment is appropriate with respect to the place of administrative standards as formulated by the CAB in the legal framework. Do they mean nothing in an individual case, or do they replace the standards of the Act? These questions may both be answered in the negative. In an individual case, administrative standards may be attacked as being inconsistent with legislative standards, just as an act of Congress is frequently attacked as being inconsistent with our highest legal standard, the Constitution. The initial legal question upon judicial review would appear to be whether the administrative standards are consistent with the Act. If so, the remaining legal question would be whether the *particular* CAB action—whether it be the master plan itself or a minor route decision—was consistent with the administrative standards.[87] Of course, once the agency relies on such standards it is doubtful whether the courts would let it willy-nilly disregard them; instead they would become rules of the game by which all parties would abide.[88] It is this which makes them so important.

Such administrative standards and whatever comprehensive planning which flows therefrom need not be static. In working out standards in a growth industry such as aviation, two things must be kept in mind. In the first place, standards must anticipate changes in the development of the industry. Secondly, standards must be dovetailed with statistical controls so that if conditions change radically, standards can be changed as well. In addition, it must be borne in mind that experience with administering comprehensive regulations may require modification of administrative standards, thereby necessitating revision of the master plan, and in turn policy reversals on the part of the Board. However, it must be possible to explain these reversals in terms of these changes. In this context, a decision by the Board in a particular case in 1949 may be quite arbitrary and capricious as being inconsistent with the master plan or with the agency's administrative standards, yet ten years later be in perfect accord with the revised approach of the agency.

To the narrow legalist, such a procedure may appear at odds with the concepts of Anglo-American jurisprudence. True enough, our early history found case law, with its dependence upon the precedent of past decision, entirely adequate for a simple and stable society. But following the Industrial Revolution and subsequent

[85] 50 STAT. 246 (1937), 7 U. S. C. §608c (15)(A) (1946).

[86] The opinions of the Department of Agriculture's Judicial Officer are published monthly in AGRICULTURE DECISIONS. These opinions are among the most significant rendered in the field of Government regulation.

[87] *Cf.* Gillespie-Rogers-Pyatt Co. v. Bowles, 144 F. 2d 361 (E. C. A. 1944); Armour & Co. v. Bowles, 148 F. 2d 529 (E. C. A. 1945).

[88] *Cf.* Armour & Co. v. Brown, 137 F. 2d 233 (E. C. A. 1943); Hillcrest Terrace Corp. v. Brown, 137 F. 2d 663 (E. C. A. 1943).

economic dislocations our community lost its faith in the administration of law solely by older techniques, and demanded a system under which government itself would take certain responsibilities for the development and enforcement of law, formerly assumed to be entirely private in nature. In this setting the case-by-case approach was found to have some value, but in addition such materials as legislative history, statutory interpretation, and administrative rules and interpretations gained relevance. Long after these developments occurred they were recognized as a distinct phenomenon of our jurisprudence and labeled "administrative law."

In the last twenty years we have discovered that controlling our economic system is a very complex task. The feeling is growing that survival and plenty cannot be grasped by amelioratory efforts to patch things up after a crisis has occurred. We are now concerned about *preventing* a crisis, about a long-range view of our natural resources and security. Our fear of things which *may* happen has driven us to planning in large areas of our economy. In these areas, the "administrative process" has or should take on new meaning.[89] Perhaps this new departure in our legal system would be better understood if it is said that we have gone *beyond administrative law*; that "planning law" has become an additional facet of our jurisprudence. If this is so, the tools and techniques of planning must be recognized as both useful and legally relevant to the particular task.

It is extremely important that the Civil Aeronautics Board succeed in its assigned task to promote, develop, and encourage an air transportation system adequate to future as well as present needs. The authority of the CAB over air transportation could hardly be more comprehensive. It is one of the few agencies of our government with *real* national control over a particular area of the economy, a control deemed necessary by the industry itself.[90] In some ways this type of control has been this nation's alternative to nationalization of the industry; but this alternative as presently administered has been such a costly venture[91] that who can honestly say that nationalization—even assuming the grossest inefficiencies—would not be cheaper? It is the thesis of this paper that further chaos, excessive public expenditures, and perhaps even nationalization are inevitable unless the CAB can soon discard the judicial machinery which served society so well before the Industrial Revolution, but which is so unequal to the task of planning the future of air transportation.

[89] *Cf.* James M. Landis, The Administrative Process (1938); David F. Cavers and Associates, Problems in Price Control: Pricing Standards (1947); and Myres S. McDougal and David Haber, Property, Wealth, Land: Allocation, Planning and Development (1948).

[90] For example, see the testimony of the late Colonel Edgar S. Gorrell, one time President of the Air Transport Association of American, in *Hearings before Subcommittee of Committee on Interstate and Foreign Commerce on S. 2 and S. 1760*, 75th Cong., 1st Sess. 498 (1937).

[91] "The constantly increasing amounts of subsidy payments in the form of mail pay granted to some of our air carriers has become a matter of national concern. The Government has paid out some 100 million dollars in mail pay for the year 1948, with additional sums yet to come, and mail pay during 1949 is likey to reach a total of 125 million dollars. This compares with a total of some 230 million dollars paid to all of the airlines for all of the years since the passage of the Civil Aeronautics Act prior to 1948." Dissenting opinion of Member Jones in *Air Freight Certificate Case*, Docket 810, Order Serial No. E-3085, July 29, 1949, p. 40. S. J. Res. 92, introduced May 16, 1949, by Senator Johnson of Colorado, uses the figure 110 million dollars for the year 1948..

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